TECHNICAL SERVICE MANUAL FOR KEMPOMAT

KEMPPI
The Joy of Welding

TECHNICAL SERVICE MANUAL FOR KEMPOMAT

GENERAL MAINTENANCE OF KEMPOMAT

Maintenance of Kempomat power source will normally consist of general cleaning of unit with soft brush and vacuum cleaner, and checking of wearing for parts like: switches, connectors, potentiometers and fuses.

NOTE! If you use compressed air for cleaning, there is a risk that dirt is packed even more tightly into gaps of connectors or components, so be carefull with those parts!

Maintenance of the wire feeder and mig gun will normally consist of general cleaning and change of consumable parts like: contact tube, contact tip, contact tip adapter, gas nozzle, wire conduit, feeding rolls, guide tubes, and gear wheel.

The number of machines in will determine to what extend consumable- and spare parts will be stocked.

WARNING

Watch out for the mains voltage! Disconnect the power source from mains voltage before removing cover plates or any testing or measurement and before troubleshooting look for signs of over heating, fractures and damages from internal components and power semiconductors.

TROUBLESHOOTING CHART

TROUBLE	CAUSE	REMEDY
The KEMPOMAT doesn´t start at all.The signal lamps of the machine are not switched on.	Blown fuse in mains supply voltage.	Check all three supply voltage phases; check fuses.
	Faulty mains cable.	Check mains voltage from terminal block X001, repair cable if needed.
	Broken main switch.	Check the main supply voltage before and after main switch, change switch if needed.
	Faulty auxiliary transformer T002 or bad connection in connector X006, 400V or 0V.	Check transformer, repair transformer connection or change if needed.
	Blown fuse F001 8A.	Check fuse and change if needed.

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TROUBLESHOOTING CHART

TROUBLE	CAUSE	REMEDY
Welding quality is bad: - arc is not stable - there are lot of spatters - bad arc start - not enough arc voltage	One phase is missing. Shielding gas is missing. Gas hose of the torch is leaking or connection is loose. Faulty main switch S001 or contactor K001. Faulty main transformer T001. Broken diode in the rectifier G001.	Check all phases from the terminal block X001. Change mains fuse if needed or tighten mains cables. Check the operation of solenoid valve. **See section, solenoid valve Y001 doesn´t work.** Check/repair the mig torch. Measure first main switch if it is all right check the contactor. Check that voltages are symmetrical on the secondary of T001. The voltage values depends on the machine type and the settings of the step switches. Check and replace the rectifier G001, if needed.
Welding stops occasionally or some other occasional disturbances.	Faulty switch in the mig torch. Bad connection in the control wires of the torch or in the connector X003 or X109	Check and replace the switch if needed. Check the control wires and the connestors and repair if needed.
Machine is overheating because the fan doesn´t start.	Faulty fan or PCB A001 .	Check the 24 VDC voltage from fan connector X3/3 and X3/4, if it is all right replace the fan, if it is not replace the PCB A001.

TECHNICAL SERVICE MANUAL FOR KEMPOMAT

TROUBLESHOOTING CHART

TROUBLE	CAUSE	REMEDY
The wire feeding unit doesn´t work.	Blown fuse F001 8A.	Replace the fuse F001. If the fuse burns once more, the PCB A001 is bad.
	Motor doesn´t run.	Check the control voltage (max. c. 24 VDC) for the motor; connectors X4/12 - X4/13 on the PCB A001. If the control voltage is correct, the PCB is in order, replace the motor.
	Control voltages for the PCB A001 are missing.	Check the voltages; connectors X3/2 - X3/8 and X3/10 - X3/9 on the PCB A001. If the voltages are not correct, the transformer T002 is bad.
The solenoid valve Y001 doesn´t work.	Faulty solenoid valve or PCB A001.	Check the 24 VDC from connector X3/5 and X3/6. Replace the PCB or solenoid valve.
Wire feeding speed set value can´t adjusted.	The set value potentiometer RW102 is faulty.	Check and replace the 10KΩ set value potentiometer RW102 if needed.

TROUBLESHOOTING CHART (KWM-SYNC, KWM-TIMER AND MSD-1)

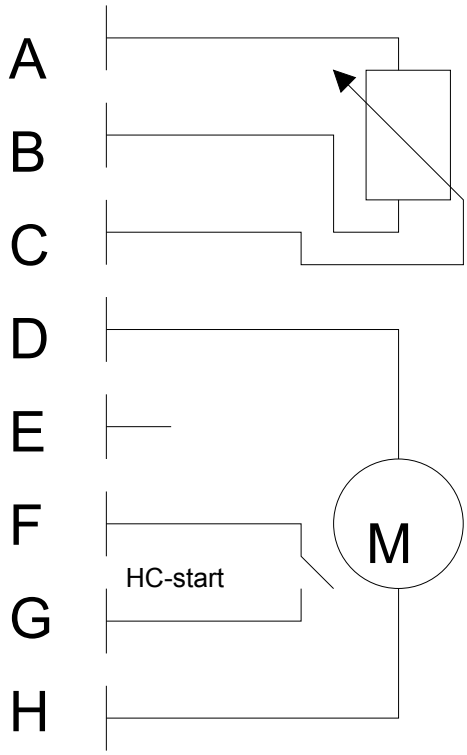
TROUBLE	CAUSE	REMEDY
KMW-sync is not working.	Faulty connection in connector X1.	Check and repair connection according to **PICTURE 1**.
Occasional disturbances with KMW-timer unit.	Ribbon cable between KMW-timer and control card A001 is loose or cut.	Check and tighten the ribbon cable.
	Faulty KMW-timer unit.	Check and change the KMW-timer unit. See also potentiometers from **PICTURE 3.**
If some other push-pull torch than Binzel or Hulftegger is in use the torch might pull to fast.	Voltage for the motor of push-pull torch is too high.	By connecting the jumper on the connectors X1 and X2 on the KMW sync PCB is possible to decrease the voltage.

TECHNICAL SERVICE MANUAL FOR KEMPOMAT

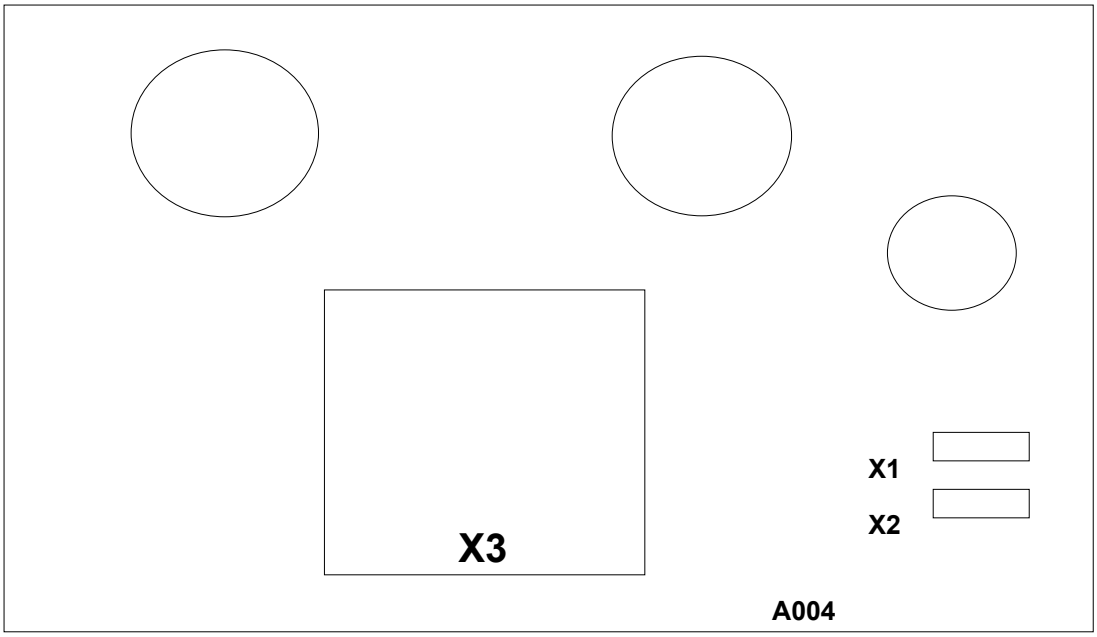
TROUBLESHOOTING CHART (KWM-SYNC, KWM-TIMER AND MSD-1)

TROUBLE	CAUSE	REMEDY
MSD-1 meter unit doesn´t work.	Ribbon cable between MSD-1 and control card A001 is loose or cut. Faulty MSD-1 unit.	Check and tighten the cable, check also the control voltage for MSD-1 from A001 X7/16 and X7/1. The control voltage should be 12 V Replace MSD-1 unit.

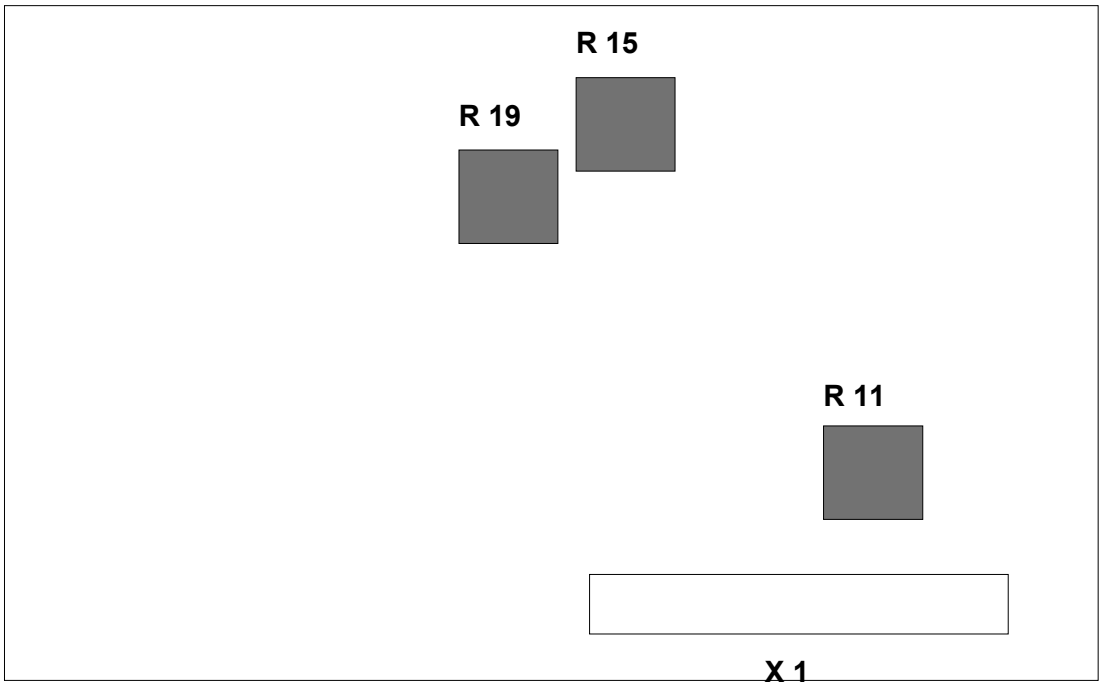
PICTURE 1. KMW-SYNC CONNECTION



PICTURE 2. **PCB OF KWM-SYNC**

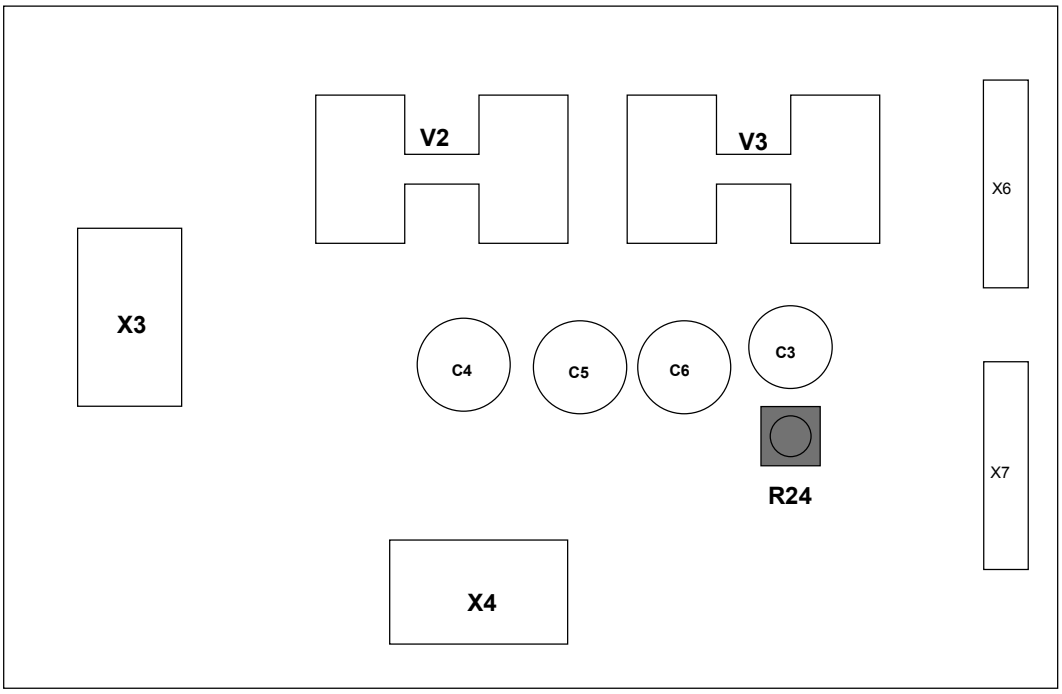


PICTURE 3. **PCB OF K400 TIMER-TIMER**



Potentiometers: **R11** = Gas post flow
R15 = Cycle time
R 19 = Pause time

PICTURE 4. PCB A001



Potentiometer: **R24** = Adjustment of wire feed speed

TROUBLESHOOTING FOR PCB A001

1.	30 VAC; over the anodes of the thyristors
2.	+ 40 V; over the capacitor C3
3.	+ 15 V; over the diode V17
4.	**SYNCRONIZATION** TP 19 (rectified sine wave)
5.	**RAMP WAVE** over the capacitor C11 (the wave is only active when start or wire feeding is on)
6.	**START** TP13; 0V ON, 15 V STOP
7.	**BREAK CONTROL** TP24 ; OV active 15 V stop
8.	**BURN BACK/POST GAS TIMER** TP33; 15 V stop, under 2V on
9.	**CONTACTOR CONTROL** TP 32; under 1 V off, over 5 V on
10.	**I** **FAN CONTROL** TP 34; under 1 V off, over 10 V on **II** **FAN CONTROL**, voltage over the capacitor C17 < 2 V fan off < 6V fan on
11.	**SET VALUE FOR WIRE FEEDING SPEED** pin X2/1 and GND; voltage between 0 V - 15 V depending on potentiometer setting

X001
L1
L2
L3
1.5
2.5
K001
K12
K11
K14
K13
K16
K15
A1
A2
S001
X002
X21
X24
X23
X26
X25
X22
S002
L
A
8 (12) SALZER (K&N)
12 (8)
17
18
T001
G001
+t°
+150°
R003
X003
35
X3
C001
M001
R001
G002
R1
X004
I
X005
II
L001
R002
R2
MU
RU
PU
X108
M002
S1
X107
START
SW101
X003
T002
X6
400V
230V
0V
1.1
1.3
1.2
2.1
30V
2.3
26V
2.4
19V
2.2
0V
3.1
10,5V
3.2
0V
X60
X006
F001
8A
H001
(kelt)
PL
M
A001
RW101
RW102
Y001
X7
16NAP.
NAUHA-
KAAPELI
MSD1
X6
16 NAP.
NAUHA-
KAAPELI
2T
4T
SYNKRONOINTIK.
A
B
C
D
E
F
G
H
X2 1
X2 5
X2 3
X2 2
X2 6
X2 4

KEMPPI	KEMPOMAT 1800	TARRA	PIIRT LN 29.01.2001	TARK
		KOKO	VALM.OHJE KES-54-002	3140190A

X001
L
N
PE
2×2,5
K12 2 1 K11
K14 4 3 K13
K16 6 5 K15
K18 8 7 K17
−2NC
−1NC
A1 A2
K001
S002
S003
T001
2,5²/90°C
A
L
1
2
3
4
5
6
11
7
3
9
5
1
G001
R002
R003
+t°
+170
C002
R001
35²
X003
X005
II
L001
X004
I
C2M
L1
X006
X007
C001
M002
M001
PU
SI
MU
S001
X108
X107
START
T
SW101
X003
T002
400V 1.1
230V 1.3
0V 1.2
X60
X002
2.1 30V
2.3 26V
2.4 19V
2.2 0V
3.1 10,5V
3.2 0V
F001
8A
H001
(kelt)
PL
M
A001
3 7
4 6
4 5
4 8
4 7
4 11
4 10
1 3
1 2
1 5
3 3
3 4
4 13
4 12
4 14
4 15
4 1
4 3
4 4
3 5
3 6
3 1
3 2
3 8
3 9
3 10
3 12
3 11
2 1
2 5
X6
RW101
RW102
Y001
16 NAP.
NAUHA-
KAAPELI-
LISATOI-
MINTA-
YKSIKKO
2T
4T

S002		S003	
K&N	SALZER	K&N	SALZER
2	1	2	1
1	2	1	2
3	4	5	4
		9	6
		3	8
		7	10
		11	12

KEMPPI	KEMPOMAT 2001	TARRA	PIIRT LN 12.02.2001	TARK
		KOKO	VALM.OHJE KES-54-002	3144190A

X001
K001
X002
S002
S001
T001
G001
X003
M001
X004
X005
C001
G002
R001
L001
R002
R003
M002
M003
X108
X107
START
SW101
RW101
RW102
Y001
T002
X006
F001
8A
H001
(kelt)
A001
X7
16NAP.
NAUHA-
KAAPELI
MSD1
X6
16 NAP.
NAUHA-
KAAPELI
SYNKRONOINTIK.

	KEMPOMAT 2500	TARRA	PIIRT LN 29.01.2001	TARK
		KOKO / VALM.OHJE KES-54-002		3140200B

X001
L
N
PE
2x2,5
K12 2 1 K11
K14 4 3 K13
K16 6 5 K15
K18 8 7 K17
-2NC
-1NC
A1 A2
K001
S001
S002
S003
2,5²/90°C
T001
A
L
1
2
3
4
5
6
11
7
3
9
5
1
G001
R003
+t°
+170
C002
R001
35²
X3
X003
+
C2M
MU
RU
R002
L001
L1
X005
II
X004
I
X006
X007
C001
M001
M002
PU
SI
X108
X107
START
T
SW101
X003
A001
RW101
RW102
Y001
T002
400V 1.1
230V 1.3
0V 1.2
X60
2.1 30V
2.3 26V
2.4 19V
2.2 0V
3.1 10,5V
3.2 0V
X002
F001
8A
H001
(kelt)
PL
M
X6
16 NAP.
NAUHA-
KAAPELI-
LISATOI-
MINTA-
YKSIKKO
2T
4T

S002		S003	
K&N	SALZER	K&N	SALZER
2	1	2	1
1	2	1	2
3	4	5	4
		9	6
		3	8
		7	10
		11	12

KEMPPI	KEMPOMAT 2501	TARRA	PIIRT LN 12.02.2001	TARK
		KOKO	VALM.OHJE KES-54-002	3144200A

X001
L1
L2
L3
PE
2,5
K001
K12
K11
K14
K13
K16
K15
A1
A2
X002
X21
X24
X23
X26
X25
X22
S001
S002
S003
T001
G001
X3
50
X003
M001
C001
X004
I
II
X005
R001
R1
L001
R2
G002
MU
PU
R002
R003
+t°
+170°
M002
SI
X108
X107
START
X109
SW101
T002
X6
400V 1.1
230V 1.3
0V 1.2
X60
2.1 30V
2.3 26V
2.4 19V
2.2 0V
3.1 10.5V
3.2 0V
X005
F001
8A
H001
(kelt)
PL
M
A001
RW101
RW102
Y001
X7
16NAP.
NAUHA-
KAAPELI
MSD1
X6
16 NAP.
NAUHA-
KAAPELI
2T
4T

S002/S003	
SALZER	K&N
1	2
9	10
17	18
2	1
4	5
6	7
8	3
10	9
12	13
14	15
16	11
18	17
20	21
22	23
24	19

SYNKRONOINTIK.
X2 5
X2 1

KEMPPI	KEMPOMAT 3200	TARRA	PIIRT LN 990323 / TARK
		KOKO / VALM.OHJE KES-54-002	3140210C

S001					S002/S003		
SALZER		K&N			SALZER	K&N	
L1	2	R	1		1	2	
L2	9	S	5		9	10	
L3	14	T	14		17	18	
U1	3	U	2		2	1	
V1	6	V	6		4	5	
W1	15	W	13		6	7	
U2	7	X	10		8	3	
V2	12	Y	7		10	9	
W2	8	Z	4		12	13	
					14	15	
					16	11	
					18	17	
					20	21	
					22	23	
					24	19	

KEMPPI	KEMPOMAT 4000	TARRA	PIIRT LN 25.01.2000 / TARK
		KOKO / VALM.OHJE KES-54-002	3140220C

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
9772551	F001	FUSE BOX + NUT		1
9750161	G001	RECTIFICATION UNIT		1
4287420	G002	PARALLEL DIODE	KEMPOWELD	1
9775729	H001	SIGNAL LAMP YELLOW		1
9764310	K001	CONTACTOR		1
3138470	L001	CHOKE	KMAT 1800	1
9544213	M001	COOLING FAN	MASTER 1500/2200	1
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
4292100	R001	RESISTOR	0.19 OHM KMAT1800	1
4266150	R002	SHUNT RESISTOR	300A/60MV	1
9761375	SW101	LEVER SWITCH		1
9761370	SW102	LEVER SWITCH		1
9761225	S001	FLIP-FLOP SWITCH	WITH PILOT LAMP	1
9760453	S002	SWITCH		1
2066200	T001	TRANSFORMER	KMAT 1800	1
3141290	T002	AUXIL. TRANSFORMER		1
9770458	XW101	PLUG 6 POLES		1
9770460	XW102	PLUG 15 POLES		1
9770460	XW103	PLUG 15 POLES		1
9770449	XW104	FEMALE CONTACT BODY	9 POLES	1
9770455	XW104	PLUG 9 POLES		1
9771530	X001	MACHINE SOCKET	50/70	2
3134100	X002	SNAP CONNECTOR		1
9563002	Y001	SOLENOID VALVE		1
3144740	0-001	UNDERCARRIAGE	KMAT 1800,2500	1
2070590	0-002	FRONT PLATE	KMAT 1800, 2500	1
3144750	0-003	FACE BAR	KEMPOMAT 1800, 2500	1
2070610	0-004	COVER PLATE	KEMPOMAT 1800,2500	1
3144300	0-005	SIDE PLATE LEFT	KEMPOMAT	1
3144310	0-006	SIDE PLATE RIGHT	KEMPOMAT	1
2070320	0-007	DOOR	KEMPOMAT	1
1921650	0-008	SPARE PART LIST	SL-K250	1
9568911	0-009	HOSE CONNECTOR	R1/8-5ML	1
9547105	0-010	WHEEL	200/50-20/55	2
9547770	0-011	WHEEL, ROTATING	100	2
4279940	0-012	FLAT CABLE	L=380	1
4279940	0-013	FLAT CABLE	L=380	1
9759111	0-014	KNOB	D36	1
9759122	0-015	LOCK PLATE F KNOB	D36	1
9759109	0-016	KNOB	D15	1
9759126	0-017	LOCK PLATE F KNOB	D15 RED	1
2062900	0-020	PLASTIC HANDLE	26X50X217/188	1
1026870	0-021	SAFETY FRAME F DISPL		1
1026880	0-022	COVER PLATE FOR DISP		1
4282460	0-023	WIRE FEED STICKER	KMAT	1
2070600	0-024	REAR PLATE	KEMPOMAT 1800	1
3140670	0-025	STICKER FOR PANEL	KMAT 1800	1
2062070	0-026	HUB FOR WIRE REEL	PROMIG	1
3133500	0-027	CLAMP	PROMIG	1
4267970	0-028	BRAKE PIECE	PROMIG 500/510	1
4265820	0-029	CLAMPING NUT	M16	1
4270940	0-030	PRESS SPRING	PROMIG	1
9425216	0-031	WASHER	D16	1
3138810	0-032	LEFT HINGE		1
3139110	0-033	RIGHT HINGE		1
3134270	0-034	HOSE CONNECTOR	R1/8-M12	1
3140560	0-035	WIRE PATH-WELD.STICK		1
		ACCESSORIES*		
6219100	1-010	SYNCHRONIZAT. UNIT	KMW SYNC	1
6219200	1-020	TIMER UNIT	KMW TIMER	1
6185666	1-030	VOLT/AMP. METER. UNI	MSD 1	1
3140190		CIRCUIT DIAGRAM	KEMPOMAT 1800	1

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
3143990	C002	CAPACITOR UNIT	KEMPOMAT 2001, 2501	1
9772551	F001	FUSE BOX + NUT		1
9750159	G001	RECTIFICATION UNIT		1
9775729	H001	SIGNAL LAMP YELLOW		1
9764112	K001	CONTACTOR		1
3143880	L001	CHOKE		1
9544213	M001	COOLING FAN	MASTER 1500/2200	1
9753625	R003	RESISTOR	15R 25W	1
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
9761375	SW101	LEVER SWITCH		1
9761225	S001	FLIP-FLOP SWITCH	WITH PILOT LAMP	1
9760603	S002	SWITCH		1
3143840	T001	TRANSFORMER	KEMPOMAT 2001	1
3141290	T002	AUXIL. TRANSFORMER		1
9770458	XW101	PLUG 6 POLES		1
9770460	XW102	PLUG 15 POLES		1
9770460	XW103	PLUG 15 POLES		1
9770455	XW104	PLUG 9 POLES		1
9770449	XW104	FEMALE CONTACT BODY	9 POLES	1
9771530	X001	MACHINE SOCKET	DIX BE 50/70	3
3134100	X002	SNAP CONNECTOR		1
956300201	Y001	SOLENOID VALVE		1
3144010	0-001	UNDERCARRIAGE	KEMPOMAT 2001, 2501	1
2070310	0-002	FRONT PLATE	KEMPOMAT 2001	1
3144020	0-003	FACE BAR	KEMPOMAT 2001, 2501	1
2070030	0-004	COVER PLATE	KEMPOMAT 2001, 2501	1
3144300	0-005	SIDE PLATE LEFT	KEMPOMAT	1
3144310	0-006	SIDE PLATE RIGHT	KEMPOMAT	1
2070320	0-007	DOOR	KEMPOMAT	1
1921650	0-008	SPARE PART LIST	SL-K250	1
9568911	0-009	HOSE CONNECTOR	R1/8-5ML	1
9547105	0-010	WHEEL	200/50-20/55	2
9547770	0-011	WHEEL, ROTATING	100	2
4279940	0-012	FLAT CABLE	L=380	1
4279940	0-013	FLAT CABLE	L=380	1
9759111	0-014	KNOB	D36	1
9759122	0-015	LOCK PLATE F KNOB	D36	1
9759109	0-016	KNOB	D15	1
9759126	0-017	LOCK PLATE F KNOB	D15 RED	1
2062900	0-018	PLASTIC HANDLE	26X50X217/188	1
1026870	0-021	SAFETY FRAME F DISPL		1
4282460	0-023	WIRE FEED STICKER	KMAT	1
3140680	0-025	STICKER FOR PANEL	KMAT 2500	1
2062070	0-026	HUB FOR WIRE REEL	PROMIG	1
3133500	0-027	CLAMP	PROMIG	1
4267970	0-028	BRAKE PIECE	PROMIG 500/510	1
4265820	0-029	CLAMPING NUT	M16	1
4270940	0-030	PRESS SPRING	PROMIG	1
9425216	0-031	WASHER	D16	1
3134270	0-034	HOSE CONNECTOR	R1/8-M12	1
3140560	0-035	WIRE PATH-WELD.STICK		1
9764123	0-036	AUXILIARY CONTACT		1
		ACCESSORIES*		
6219200	1-020	TIMER UNIT	KMW TIMER	1
6185666	1-030	VOLT/AMP. METER. UNI	MSD 1	1
3144190		CIRCUIT DIAGRAM	KEMPOMAT 2001	1

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
9772551	F001	FUSE BOX + NUT		1
9750161	G001	RECTIFICATION UNIT		1
4287420	G002	PARALLEL DIODE	KEMPOWELD	1
9775729	H001	SIGNAL LAMP YELLOW		1
9764111	K001	CONTACTOR		1
3138480	L001	CHOKE	KMAT 2500	1
9544213	M001	COOLING FAN	MASTER 1500/2200	2
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
4292090	R001	RESISTOR	0.23 OHM KMAT 2500	1
4266150	R002	SHUNT RESISTOR	300A/60MV	1
9761375	SW101	LEVER SWITCH		1
9761370	SW102	LEVER SWITCH		1
9761225	S001	FLIP-FLOP SWITCH	WITH PILOT LAMP	1
9760454	S002	SWITCH		1
2066210	T001	TRANSFORMER	KMAT 2500	1
3141290	T002	AUXIL. TRANSFORMER		1
9770458	XW101	PLUG 6 POLES		1
9770460	XW102	PLUG 15 POLES		1
9770460	XW103	PLUG 15 POLES		1
9770455	XW104	PLUG 9 POLES		1
9770449	XW104	FEMALE CONTACT BODY	9 POLES	1
9771530	X001	MACHINE SOCKET	50/70	2
3134100	X002	SNAP CONNECTOR		1
956300201	Y001	SOLENOID VALVE		1
3144740	0-001	UNDERCARRIAGE	KMAT 1800,2500	1
2070590	0-002	FRONT PLATE	KMAT 1800, 2500	1
3144750	0-003	FACE BAR	KEMPOMAT 1800, 2500	1
2070610	0-004	COVER PLATE	KEMPOMAT 1800,2500	1
3144300	0-005	SIDE PLATE LEFT	KEMPOMAT	1
3144310	0-006	SIDE PLATE RIGHT	KEMPOMAT	1
2070320	0-007	DOOR	KEMPOMAT	1
1921650	0-008	SPARE PART LIST	SL-K250	1
9568911	0-009	HOSE CONNECTOR	R1/8-5ML	1
9547105	0-010	WHEEL	200/50-20/55	2
9547770	0-011	WHEEL, ROTATING	100	2
4279940	0-012	FLAT CABLE	L=380	1
4279940	0-013	FLAT CABLE	L=380	1
9759111	0-014	KNOB	D36	1
9759122	0-015	LOCK PLATE F KNOB	D36	1
9759109	0-016	KNOB	D15	1
9759126	0-017	LOCK PLATE F KNOB	D15 RED	1
2062900	0-020	PLASTIC HANDLE	26X50X217/188	1
1026870	0-021	SAFETY FRAME F DISPL		1
1026880	0-022	COVER PLATE FOR DISP		1
4282460	0-023	WIRE FEED STICKER	KMAT	1
2070630	0-024	REAR PLATE	KEMPOMAT 2500	1
3140680	0-025	STICKER FOR PANEL	KMAT 2500	1
2062070	0-026	HUB FOR WIRE REEL	PROMIG	1
3133500	0-027	CLAMP	PROMIG	1
4267970	0-028	BRAKE PIECE	PROMIG 500/510	1
4265820	0-029	CLAMPING NUT	M16	1
4270940	0-030	PRESS SPRING	PROMIG	1
9425216	0-031	WASHER	D16	1
3138810	0-032	LEFT HINGE		1
3139110	0-033	RIGHT HINGE		1
3134270	0-034	HOSE CONNECTOR	R1/8-M12	1
3140560	0-035	WIRE PATH-WELD.STICK		1
		ACCESSORIES*		
6219100	1-010	SYNCHRONIZAT. UNIT	KMW SYNC	1
6219200	1-020	TIMER UNIT	KMW TIMER	1
6185666	1-030	VOLT/AMP. METER. UNI	MSD 1	1
3140200		CIRCUIT DIAGRAM	KEMPOMAT 2500	1

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
3143990	C002	CAPACITOR UNIT	KEMPOMAT 2001, 2501	1
9772551	F001	FUSE BOX + NUT		1
9750159	G001	RECTIFICATION UNIT		1
9775729	H001	SIGNAL LAMP YELLOW		1
9764112	K001	CONTACTOR		1
3143880	L001	CHOKE		1
9544213	M001	COOLING FAN	MASTER 1500/2200	2
9753625	R003	RESISTOR	15R 25W	1
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
9761375	SW101	LEVER SWITCH		1
9761225	S001	FLIP-FLOP SWITCH	WITH PILOT LAMP	1
9760603	S002	SWITCH		1
3143810	T001	TRANSFORMER	KMAT 2501	1
3141290	T002	AUXIL. TRANSFORMER		1
9770458	XW101	PLUG 6 POLES		1
9770460	XW102	PLUG 15 POLES		1
9770460	XW103	PLUG 15 POLES		1
9770455	XW104	PLUG 9 POLES		1
9770449	XW104	FEMALE CONTACT BODY	9 POLES	1
9771530	X001	MACHINE SOCKET	DIX BE 50/70	3
3134100	X002	SNAP CONNECTOR		1
956300201	Y001	SOLENOID VALVE		1
3144010	0-001	UNDERCARRIAGE	KEMPOMAT 2001, 2501	1
2070540	0-002	FRONT PLATE	KEMPOMAT 2501	1
3144020	0-003	FACE BAR	KEMPOMAT 2001, 2501	1
2070030	0-004	COVER PLATE	KEMPOMAT 2001, 2501	1
3144300	0-005	SIDE PLATE LEFT	KEMPOMAT	1
3144310	0-006	SIDE PLATE RIGHT	KEMPOMAT	1
2070320	0-007	DOOR	KEMPOMAT	1
1921650	0-008	SPARE PART LIST	SL-K250	1
9568911	0-009	HOSE CONNECTOR	R1/8-5ML	1
9547105	0-010	WHEEL	200/50-20/55	2
9547770	0-011	WHEEL, ROTATING	100	2
4279940	0-012	FLAT CABLE	L=380	1
4279940	0-013	FLAT CABLE	L=380	1
9759111	0-014	KNOB	D36	1
9759122	0-015	LOCK PLATE F KNOB	D36	1
9759109	0-016	KNOB	D15	1
9759126	0-017	LOCK PLATE F KNOB	D15 RED	1
2062900	0-018	PLASTIC HANDLE	26X50X217/188	1
1026870	0-021	SAFETY FRAME F DISPL		1
4282460	0-023	WIRE FEED STICKER	KMAT	1
3140680	0-025	STICKER FOR PANEL	KMAT 2500	1
2062070	0-026	HUB FOR WIRE REEL	PROMIG	1
3133500	0-027	CLAMP	PROMIG	1
4267970	0-028	BRAKE PIECE	PROMIG 500/510	1
4265820	0-029	CLAMPING NUT	M16	1
4270940	0-030	PRESS SPRING	PROMIG	1
9425216	0-031	WASHER	D16	1
3134270	0-034	HOSE CONNECTOR	R1/8-M12	1
3140560	0-035	WIRE PATH-WELD.STICK		1
9764123	0-036	AUXILIARY CONTACT		1
		ACCESSORIES*		
6219200	1-020	TIMER UNIT	KMW TIMER	1
6185666	1-030	VOLT/AMP. METER. UNI	MSD 1	1
3144200		CIRCUIT DIAGRAM	KEMPOMAT 2501	1

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
9772551	F001	FUSE BOX + NUT		1
4279200	G001	RECTIFICATION UNIT	SCOMES	1
4287420	G002	PARALLEL DIODE	KEMPOWELD	1
9775729	H001	SIGNAL LAMP YELLOW		1
9544214	M001	COOLING FAN	MASTER 2800/3500	1
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
4287840	R001	RESISTOR	0.23 OHM KWELD	1
4266150	R002	SHUNT RESISTOR	300A/60MV	1
9761375	S003	LEVER SWITCH		1
9761370	S004	LEVER SWITCH		1
3141290	T002	AUXIL. TRANSFORMER		1
9770450	XW002	FEMALE CONTACT BODY	2 POLES	1
9770117	XW101	MACHINE SOCKET	10 POLES, MALE	1
9770458	XW102	PLUG 6 POLES		1
9770460	XW103	PLUG 15 POLES		2
9770455	XW105	PLUG 9 POLES		1
9770449	XW106	FEMALE CONTACT BODY	9 POLES	1
9771530	X003	MACHINE SOCKET	DIX BE 50/70	2
9563002	Y001	SOLENOID VALVE		1
4191441	ZG001	RC PROTECTION		1
2062070	020	HUB FOR WIRE REEL		1
3133500	030	CLAMP		1
9425216	035	WASHER	D16	1
4267970	040	BRAKE PIECE	PROMIG 500/510	1
4270940	045	PRESS SPRING	PROMIG	1
4265820	050	CLAMPING NUT	M16	1
2070060	051	UNDERCARRIAGE	KEMPOMAT, KEMPOWELD	1
3144050	052	FACE BAR	KEMPOMAT	1
2070650	053	REAR PLATE	KEMPOMAT 3200, 4000	1
2070670	054	COVER PLATE	KEMPOMAT 3200, 4000	1
3144780	060	SIDE PLATE RIGHT	KEMPOMAT 3200, 4000	1
3144770	070	SIDE PLATE LEFT	KEMPOMAT 3200, 4000	1
2070660	080	DOOR	KEMPOMAT 3200, 4000	1
9549064	090	SLIDE LOCK		1
9549066	100	CLAMP		1
2062900	125	PLASTIC HANDLE	26X50X217/188	1
9568911	130	HOSE CONNECTOR	R1/8-5ML	1
3139410	140	WIRE PATH-WELD.STICK	K400	1
3141040	150	STICKER FOR PANEL	KMAT 3200, 4000	1
4282460	170	WIRE FEED STICKER	KMAT	1
3001873	180	CLAMP	D30	1
3001875	190	INSULAT. PLATE FOR	CLAMP	1
9547105	200	WHEEL		2
9547770	210	WHEEL, ROTATING		2
1026870	220	SAFETY FRAME F DISPL		1
1026880	230	COVER PLATE FOR DISP		1
3138810	240	LEFT HINGE		1
3139110	250	RIGHT HINGE		1
4279940	260	FLAT CABLE	L=380	2
2061410	270	REAR GRATE	MASTER 2800/3500	1
1921600	280	SPARE PART LIST	SL-K400	1
3134270	290	HOSE CONNECTOR	R1/8-M12	1
1028250	015	FRONT PLATE	KEMPOMAT 3200	1
3140210	300	CIRCUIT DIAGRAM	KMAT 3200	1
9764130	K001	CONTACTOR		1
3138510	L001	CHOKE	KWELD,KMAT 3200	1
9761225	S001	FLIP-FLOP SWITCH	WITH PILOT LAMP	1
976052101	S002	SWITCH	D22,5	2
2066190	T001	TRANSFORMER	KWELD,KMAT 3200	1
		ACCESSORIES*		
6219100	4-010	SYNCHRONIZAT. UNIT	KMW SYNC	1
6219200	4-020	TIMER UNIT	KMW TIMER	1
6185666	4-030	VOLT/AMP. METER. UNI	MSD 1	1

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
9772551	F001	FUSE BOX + NUT		1
4279200	G001	RECTIFICATION UNIT	SCOMES	1
4287420	G002	PARALLEL DIODE	KEMPOWELD	1
9775729	H001	SIGNAL LAMP YELLOW		1
9544214	M001	COOLING FAN	MASTER 2800/3500	1
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
4287840	R001	RESISTOR	0.23 OHM KWELD	1
4266150	R002	SHUNT RESISTOR	300A/60MV	1
9761375	S003	LEVER SWITCH		1
9761370	S004	LEVER SWITCH		1
3141290	T002	AUXIL. TRANSFORMER		1
9770450	XW002	FEMALE CONTACT BODY	2 POLES	1
9770117	XW101	MACHINE SOCKET	10 POLES, MALE	1
9770458	XW102	PLUG 6 POLES		1
9770460	XW103	PLUG 15 POLES		2
9770455	XW105	PLUG 9 POLES		1
9770449	XW106	FEMALE CONTACT BODY	9 POLES	1
9771530	X003	MACHINE SOCKET	DIX BE 50/70	2
9563002	Y001	SOLENOID VALVE		1
4191441	ZG001	RC PROTECTION		1
2062070	020	HUB FOR WIRE REEL		1
3133500	030	CLAMP		1
9425216	035	WASHER	D16	1
4267970	040	BRAKE PIECE	PROMIG 500/510	1
4270940	045	PRESS SPRING	PROMIG	1
4265820	050	CLAMPING NUT	M16	1
2070060	051	UNDERCARRIAGE	KEMPOMAT, KEMPOWELD	1
3144050	052	FACE BAR	KEMPOMAT	1
2070650	053	REAR PLATE	KEMPOMAT 3200, 4000	1
2070670	054	COVER PLATE	KEMPOMAT 3200, 4000	1
3144780	060	SIDE PLATE RIGHT	KEMPOMAT 3200, 4000	1
3144770	070	SIDE PLATE LEFT	KEMPOMAT 3200, 4000	1
2070660	080	DOOR	KEMPOMAT 3200, 4000	1
9549064	090	SLIDE LOCK		1
9549066	100	CLAMP		1
2062900	125	PLASTIC HANDLE	26X50X217/188	1
9568911	130	HOSE CONNECTOR	R1/8-5ML	1
3139410	140	WIRE PATH-WELD.STICK	K400	1
3141040	150	STICKER FOR PANEL	KMAT 3200, 4000	1
4282460	170	WIRE FEED STICKER	KMAT	1
3001873	180	CLAMP	D30	1
3001875	190	INSULAT. PLATE FOR	CLAMP	1
9547105	200	WHEEL		2
9547770	210	WHEEL, ROTATING		2
1026870	220	SAFETY FRAME F DISPL		1
1026880	230	COVER PLATE FOR DISP		1
3138810	240	LEFT HINGE		1
3139110	250	RIGHT HINGE		1
4279940	260	FLAT CABLE	L=380	2
2061410	270	REAR GRATE	MASTER 2800/3500	1
1921600	275	SPARE PART LIST	SL-K400	1
3134270	280	HOSE CONNECTOR	R1/8-M12	1
1028320	015	FRONT PLATE	KEMPOMAT 4000	1
3140220	278	CIRCUIT DIAGRAM	KMAT 4000	1
9775730	H002	SIGNAL LAMP GREEN		1
9764130	K001	CONTACTOR		1
3138540	L001	CHOKE	KWELD,KMAT 4000	1

Order no.	Part	Description		Pc.
976051501	S001	Y/D-SWITCH		1
976052101	S002	SWITCH	D22,5	2
2067780	T001	TRANSFORMER	KMAT 4000, 230V	1
		ACCESSORIES*		
6219100	4-010	SYNCHRONIZAT. UNIT	KMW SYNC	1
6219200	4-020	TIMER UNIT	KMW TIMER	1
6185666	4-030	VOLT/AMP. METER. UNI	MSD 1	1

Order no.	Part	Description		Pc.
4279550	A001	CARD	A001 K400/550	1
4280180	C001	CAPACITOR	0.1 UF / 250V	1
9772551	F001	FUSE BOX + NUT		1
4279200	G001	RECTIFICATION UNIT	SCOMES	1
4287420	G002	PARALLEL DIODE	KEMPOWELD	1
9775729	H001	SIGNAL LAMP YELLOW		1
9544214	M001	COOLING FAN	MASTER 2800/3500	1
9754156	RW101	POTENTIOMETER	100 KOHM CERMET	1
9754141	RW102	POTENTIOMETER	10 KOHM CERMET	1
4287840	R001	RESISTOR	0.23 OHM KWELD	1
4266150	R002	SHUNT RESISTOR	300A/60MV	1
9761375	S003	LEVER SWITCH		1
9761370	S004	LEVER SWITCH		1
3141290	T002	AUXIL. TRANSFORMER		1
9770450	XW002	FEMALE CONTACT BODY	2 POLES	1
9770117	XW101	MACHINE SOCKET	10 POLES, MALE	1
9770458	XW102	PLUG 6 POLES		1
9770460	XW103	PLUG 15 POLES		2
9770455	XW105	PLUG 9 POLES		1
9770449	XW106	FEMALE CONTACT BODY	9 POLES	1
9771530	X003	MACHINE SOCKET	DIX BE 50/70	2
9563002	Y001	SOLENOID VALVE		1
4191441	ZG001	RC PROTECTION		1
2062070	020	HUB FOR WIRE REEL		1
3133500	030	CLAMP		1
9425216	035	WASHER	D16	1
4267970	040	BRAKE PIECE	PROMIG 500/510	1
4270940	045	PRESS SPRING	PROMIG	1
4265820	050	CLAMPING NUT	M16	1
2070060	051	UNDERCARRIAGE	KEMPOMAT, KEMPOWE	1
3144050	052	FACE BAR	KEMPOMAT	1
2070650	053	REAR PLATE	KEMPOMAT 3200, 4000	1
2070670	054	COVER PLATE	KEMPOMAT 3200, 4000	1
3144780	060	SIDE PLATE RIGHT	KEMPOMAT 3200, 4000	1
3144770	070	SIDE PLATE LEFT	KEMPOMAT 3200, 4000	1
2070660	080	DOOR	KEMPOMAT 3200, 4000	1
9549064	090	SLIDE LOCK		1
9549066	100	CLAMP		1
2062900	125	PLASTIC HANDLE	26X50X217/188	1
9568911	130	HOSE CONNECTOR	R1/8-5ML	1
3139410	140	WIRE PATH-WELD.STICK	K400	1
3141040	150	STICKER FOR PANEL	KMAT 3200, 4000	1
4282460	170	WIRE FEED STICKER	KMAT	1
3001873	180	CLAMP	D30	1
3001875	190	INSULAT. PLATE FOR	CLAMP	1
9547105	200	WHEEL		2
9547770	210	WHEEL, ROTATING		2
1026870	220	SAFETY FRAME F DISPL		1
1026880	230	COVER PLATE FOR DISP		1
3138810	240	LEFT HINGE		1
3139110	250	RIGHT HINGE		1
4279940	260	FLAT CABLE	L=380	2
2061410	270	REAR GRATE	MASTER 2800/3500	1
1921600	275	SPARE PART LIST	SL-K400	1
3134270	280	HOSE CONNECTOR	R1/8-M12	1
1028320	015	FRONT PLATE	KEMPOMAT 4000	1
3140220	278	CIRCUIT DIAGRAM	KMAT 4000	1
9775730	H002	SIGNAL LAMP GREEN		1
9764130	K001	CONTACTOR		1
3138540	L001	CHOKE	KWELD,KMAT 4000	1

Order no.	Part	Description		Pc.
976051501	S001	Y/D-SWITCH		1
976052101	S002	SWITCH	D22,5	2
2067790	T001	TRANSFORMER	KMAT 4000, 400V	1
		ACCESSORIES*		
6219100	4-010	SYNCHRONIZAT. UNIT	KMW SYNC	1
6219200	4-020	TIMER UNIT	KMW TIMER	1
6185666	4-030	VOLT/AMP. METER. UNI	MSD 1	1

Order no.	Part	Description		Pc.
		KMG20,25,32,40		
4182500	0-010	SWITCH	MT/PMT	1
9769112	0-020	FLAT CONTACT		2
4236230	0-030	CONTROL CONNECTOR		2
9580158	0-040	JACKET NUT		1
9876673	0-050	O-RING	4,0X1,0	1
9580159	0-060	SNAP CONNECTOR HEAD		1
9592105	0-070	TIGHTENING NUT		1
9769142	0-080	CONTACT, BUSH		2
9769141	0-090	FLAT CONTACT, MALE		2
3074810	0-100	BENDING PROTECTION	MT/G	1
		**** KMG20/KMG25 ***		
3144110	1-200	MULTI-PURPOSE LEAD	3M 16MM2	1
3144120	1-210	MULTI-PURPOSE LEAD	3M 25MM2	1
3144630	1-210	MULTI-PURPOSE LEAD	4.5M 25MM2	1
4275240	1-270	LOCKING SPRING	MT18-PMT25	1
4153040	1-280	NECK ASSEMBLY	MT18-PMT25	1
3130610	1-290	HANDLE	MT15-25	1
4257690	1-300	LOCKING SPRING	MT15,18,25,PMT25	1
4290060	1-310	CONTACT NUT		1
		**** KMG32/KMG40 ***		
3144140	2-400	MULTI-PURPOSE LEAD	3M 35MM2	1
3144640	2-400	MULTI-PURPOSE LEAD	4.5M 35MM2	1
4248700	2-420	INSULAT. RING, NECK	MT32-MT38	1
9475009	2-430	SAFETY RING	12 X 1 DIN 471	1
9580220	2-440	HOOK	MT32,-38	1
9591005	2-450	HANDLE	MT32,-38	1
9484006	2-460	LOCKING SPRING	MT32,-38	1
9580217	2-470	LOCKING NUT	MT32,-38	1
		******* KMG32 ******		
4259160	3-520	INSULATING RING	MT 32	1
4259480	3-530	NECK ASSEMBLY	MT28,32	1
4259491	3-540	PROTECTION FOR NECK	MT 28 32	1
		******* KMG40 ******		
3127990	4-630	NECK ASSEMBLY	45° MT38	1
3127980	4-630	NECK ASSEMBLY	LONG 60° MT38	1
3128000	4-630	NECK ASSEMBLY	60° MT38	1

Order no.	Part	Description		Pc.
9541079	M001	MOTOR F WIRE FEEDER		1
1026950	001	CHASSIS	SL 250	1
3133380	002	PRESS LEVER, LEFT	SL500	1
9592112	004	FASTENING SCREW	M6 X 10	2
4265040	005	REGULATION KNOB	SL 500	1
4265050	006	SPRING BUSHING	SL 500	1
4265240	007	GEAR WHEEL D28		1
4265070	008	PRESS DIVIDER	SL 500	1
4265080	009	PRESS SPRING	SL 500	1
4266100	010	SELECTOR PLATE FOR	GROOVE SL 500	2
4265060	011	REGULATION LEVER	SL 500	1
3133700	012	FRONT GUIDE TUBE	D6/2 SL500	1
9476513	013	SEEGER RING 8	DIN 6799	2
4285900	014	REAR GUIDE TUBE	SL250	1
9420506	015	WASHER		1
4268680	016	CONTROL CONNECTOR	BK7	2
4270770	017	SPRING	SL 500	1
9423210	018	SPRING WASHER		1
9420510	019	WASHER	10X16X0,2 DIN 988	2
3134100	020	SNAP CONNECTOR		1
4102283	021	WIRE GUIDE TUBE	D4,7/1,8-80	1
4292030	022	WASHER	GEARWHEEL	1
		ACCESSORIES		
3133210	2003	FEED ROLL RED	1.0/1.2 SL500	2
3133810	2003	FEED ROLL WHITE	0.6/0.8 SL500	4
3133820	2003	FEED ROLL YELLOW	1.6/2.0 SL500	2
3133880	2003	FEED ROLL BLACK	2.4 SL500	2
3133940	2003	FEED ROLL, KNURLED	1.0/1.2	2
3133960	2003	FEED ROLL (U-GROOVE)	1.0/1.2 RED	2
3133990	2003	FEED ROLL, KNURLED	1.6/2.0 YELLOW	2
3134030	2003	FEED ROLL, KNURLED	2.4	2
3133700	2012	FRONT GUIDE TUBE	D6/2 SL500	1
3134130	2012	FRONT GUIDE TUBE BLU	D4	1
3134140	2012	FRONT GUIDE TUBE WHI	D1	1
3134290	2012	FRONT GUIDE TUBE	AL D2	1
3134710	2012	FRONT GUIDE TUBE	AL D3	1
4283310	2014	REAR GUIDE TUBE	D2 SL250	1

Order no.	Part	Description		Pc.
3139090	M001	MOTOR F WIRE FEEDE	LSL K400/K550	1
3133380	00010	PRESS LEVER, LEFT	SL500	1
3133390	00020	PRESS LEVER, RIGHT	SL500	1
9476513	00030	SEEGER RING 8	DIN 6799	2
3133210	00040	FEED ROLL RED	1.0/1.2 SL500	4
9592112	00050	FASTENING SCREW	M6 X 10	4
4266100	00060	SELECTOR PLATE FOR	GROOVE SL 500	4
4265040	00070	REGULATION KNOB	SL 500	1
4265080	00080	PRESS SPRING	SL 500	1
4265050	00090	SPRING BUSHING	SL 500	1
4265070	00100	PRESS DIVIDER	SL 500	1
4265060	00110	REGULATION LEVER	SL 500	1
4266130	00120	LINK TUBE	SL 500	1
4265240	00130	GEAR WHEEL D28		1
4265250	00140	GEAR WHEEL D40		1
9420506	00150	WASHER		1
3134100	00160	SNAP CONNECTOR		1
4268680	00170	CONTROL CONNECTOR	BK7	2
4270770	00180	SPRING	SL 500	1
3133700	00190	FRONT GUIDE TUBE	D6/2 SL500	1
3134120	00200	MIDDLE GUIDE TUBE	0,6-1,6 D2 ORANGE	1
4267220	00210	REAR GUIDE TUBE D2	SL 500	1
9420510	00220	WASHER	10X16X0,2 DIN 988	7
4292030	00230	WASHER	GEARWHEEL	1
		ACCESSORIES*		
3133810	10040	FEED ROLL WHITE	0.6/0.8 SL500	4
3133820	10040	FEED ROLL YELLOW	1.6/2.0 SL500	4
3133880	10040	FEED ROLL BLACK	2.4 SL500	4
3133940	10040	FEED ROLL, KNURLED	1.0/1.2	4
3133990	10040	FEED ROLL, KNURLED	1.6/2.0 YELLOW	4
3134030	10040	FEED ROLL, KNURLED	2.4	4
3133960	10040	FEED ROLL (U-GROOVE)	1.0/1.2 RED	4
3134140	20190	FRONT GUIDE TUBE WHI	D1	1
3134130	20190	FRONT GUIDE TUBE BLU	D4	1
3134290	20190	FRONT GUIDE TUBE	AL D2	1
3134710	20190	FRONT GUIDE TUBE	AL D3	1
3134110	30200	MIDDLE GUIDE TUBE	BLUE D4	1
3134300	30200	MIDDLE GUIDE TUBE	AL D2	1
3134720	30200	MIDDLE GUIDE TUBE	AL D3	1
4270180	40210	REAR GUIDE TUBE	AL, D4	1
4267030	40210	REAR GUIDE TUBE	D4	1

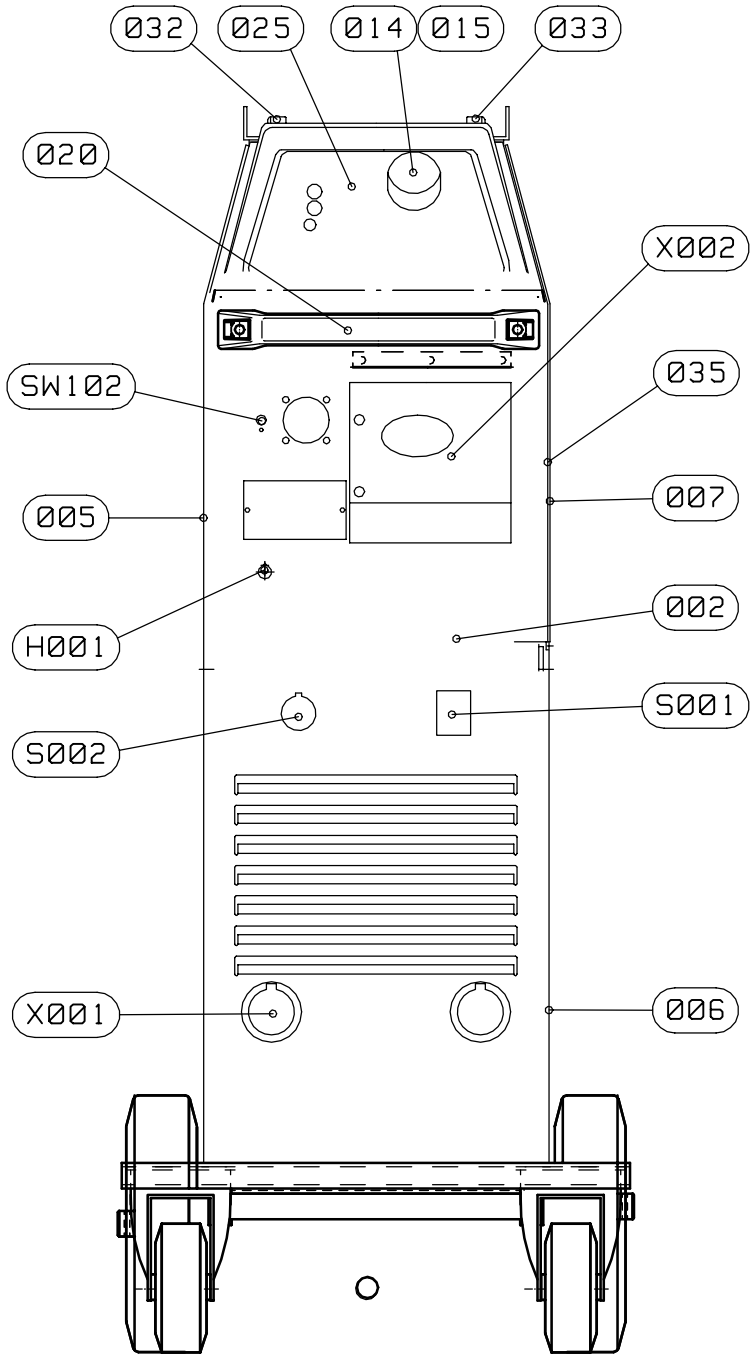
Order no.	Part	Description		Pc.
3139090	M001	MOTOR F WIRE FEEDE	LSL K400/K550	1
3133380	00010	PRESS LEVER, LEFT	SL500	1
3133390	00020	PRESS LEVER, RIGHT	SL500	1
9476513	00030	SEEGER RING 8	DIN 6799	2
3142210	00040	FEED ROLL ORANGE	1.2/1.2 TRAPEZE, L	4
9592112	00050	FASTENING SCREW	M6 X 10	4
4266100	00060	SELECTOR PLATE FOR	GROOVE SL 500	4
4265040	00070	REGULATION KNOB	SL 500	1
4265080	00080	PRESS SPRING	SL 500	1
4265050	00090	SPRING BUSHING	SL 500	1
4265070	00100	PRESS DIVIDER	SL 500	1
4265060	00110	REGULATION LEVER	SL 500	1
4266130	00120	LINK TUBE	SL 500	1
4265240	00130	GEAR WHEEL D28		1
4265250	00140	GEAR WHEEL D40		1
9420506	00150	WASHER		1
3134100	00160	SNAP CONNECTOR		1
4268680	00170	CONTROL CONNECTOR	BK7	2
4270770	00180	SPRING	SL 500	1
3133700	00190	FRONT GUIDE TUBE	D6/2 SL500	1
3134120	00200	MIDDLE GUIDE TUBE	0,6-1,6 D2 ORANGE	1
4267220	00210	REAR GUIDE TUBE D2	SL 500	1
9420510	00220	WASHER	10X16X0,2 DIN 988	7
4292030	00230	WASHER	GEARWHEEL	1
		ACCESSORIES*		
3138650	10040	FEED ROLL 1.0/1.0	RED BALL BEARING	4
3142200	10040	FEED ROLL YELLOW	1.6/1.6 TRAPEZE, L	4
3142230	10040	FEED ROLL GREY	2.0/2.0 TRAPEZE, L	4
3142240	10040	FEED ROLL BLACK	2.4/2.4	4
3141590	10040	FEED ROLL U-GROOVE	1.2/1.6 YELLOW	4
3133960	10040	FEED ROLL (U-GROOVE)	1.0/1.2 RED	4
3134130	20190	FRONT GUIDE TUBE BLU	D4	1
3134290	20190	FRONT GUIDE TUBE	AL D2	1
3134710	20190	FRONT GUIDE TUBE	AL D3	1
3134110	30200	MIDDLE GUIDE TUBE	BLUE D4	1
3134300	30200	MIDDLE GUIDE TUBE	AL D2	1
3134720	30200	MIDDLE GUIDE TUBE	AL D3	1
4270180	40210	REAR GUIDE TUBE	AL, D4	1
4267030	40210	REAR GUIDE TUBE	D4	1

KEMPOMAT 1800

1921780
V214150

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



KEMPPI

2070710 A

KEMPOMAT 1800

1921780

V214150

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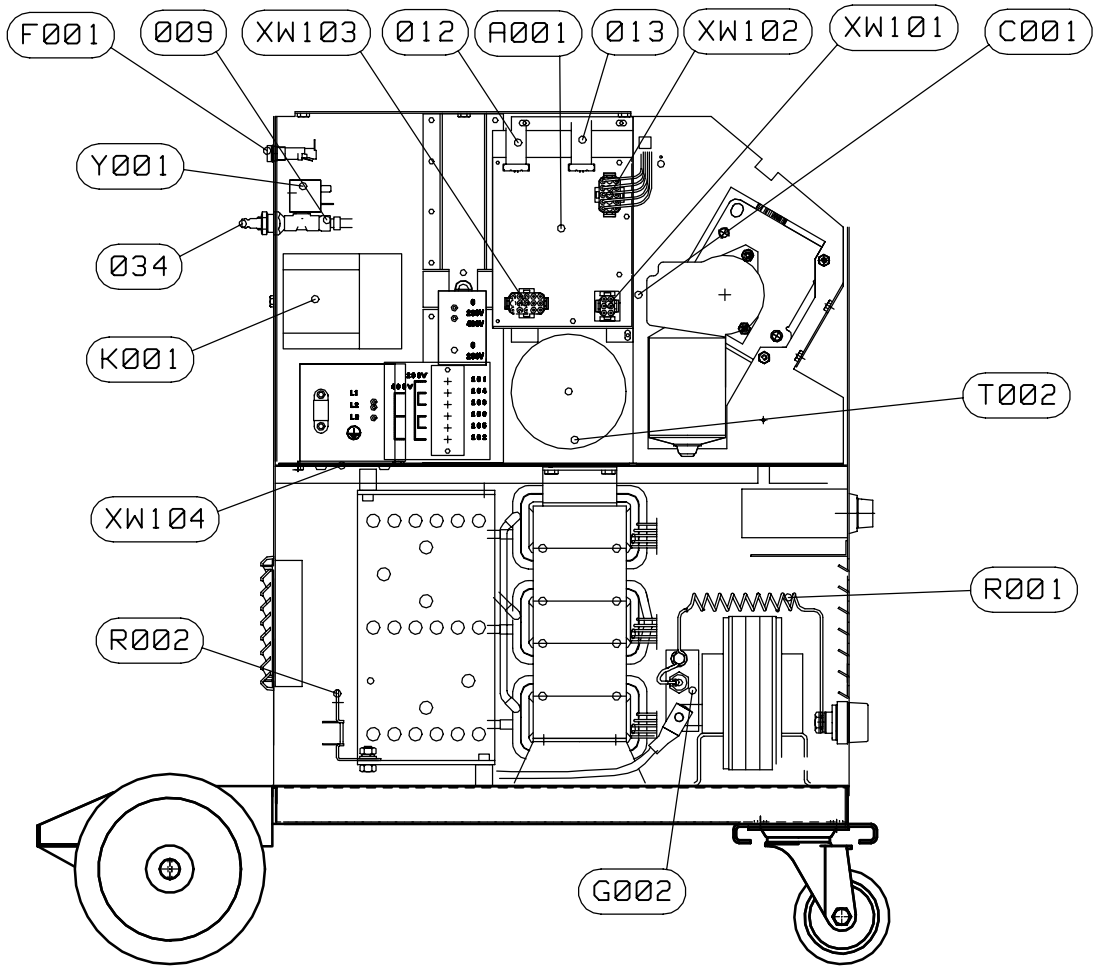
RESERVDELAR — ERSATZTEILE
RESERVE DELER — ONDERDELEN
RESERVEDELE — PIECES DETACHEES



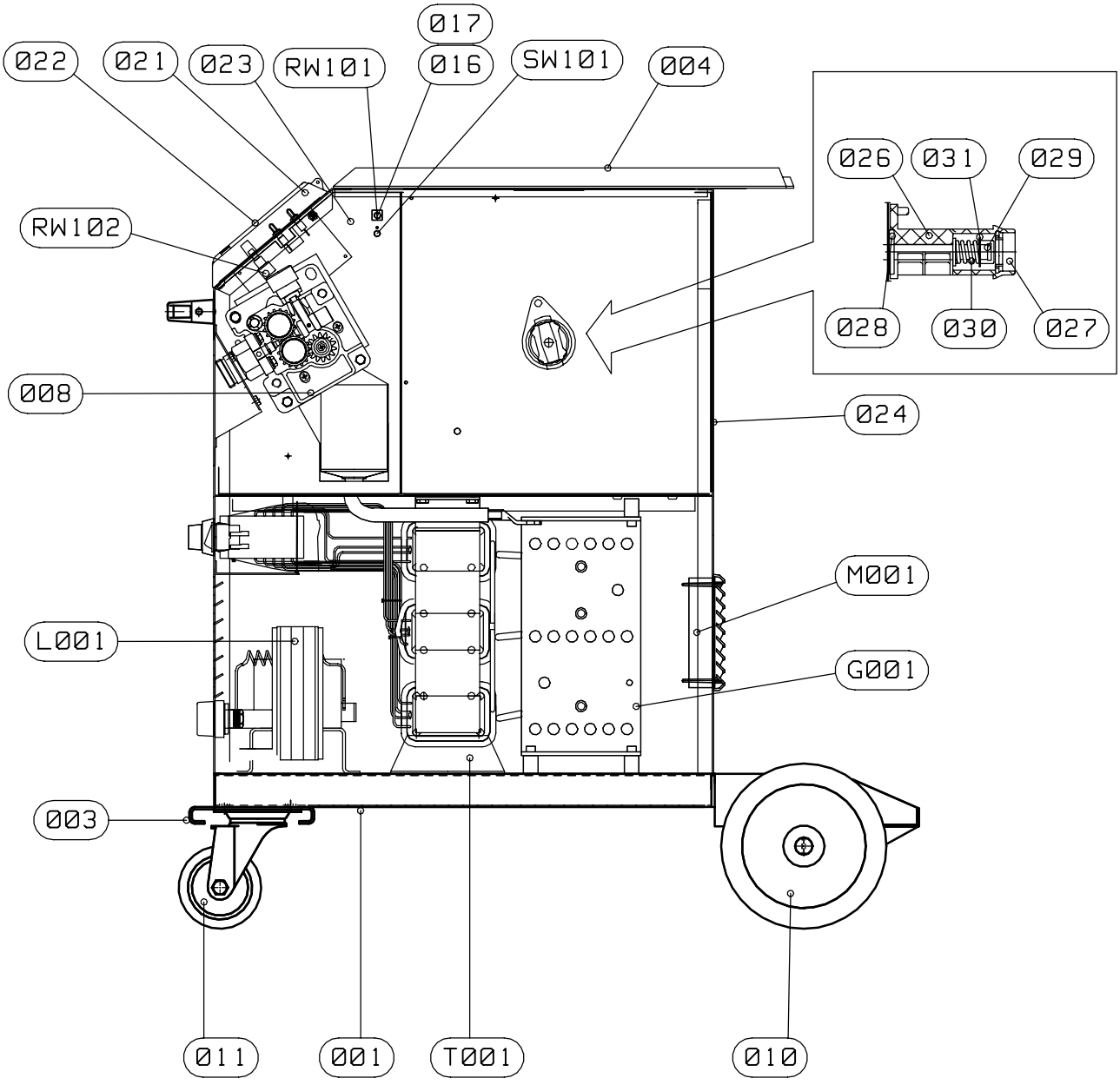
2070710 A

KEMPOMAT 1800

1921780

V214150

VARAOSAT — SPARE PARTS
RESERVDELAR — ERSATZTEILE
RESERVE DELER — ONDERDELEN
RESERVEDELE — PIECES DETACHEES



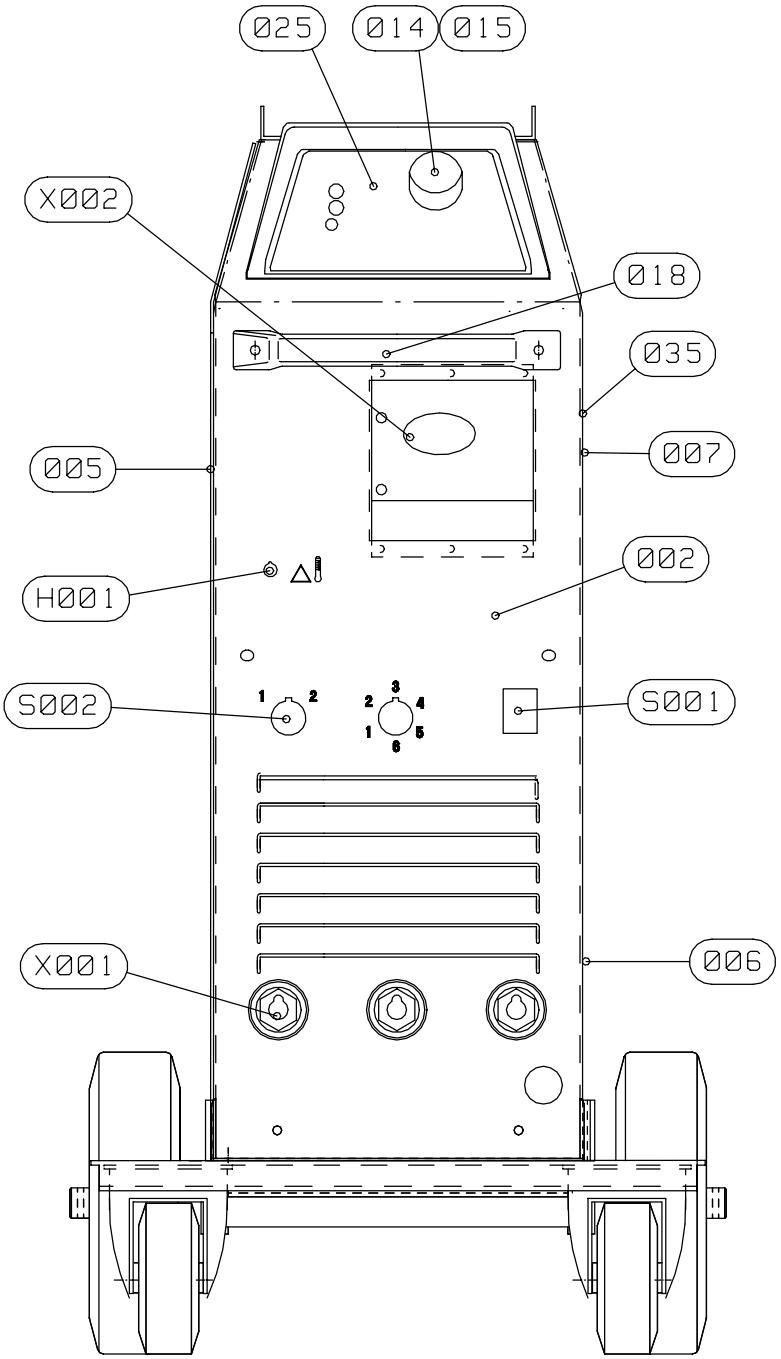
2070710 A

KEMPOMAT 2001

1921740
V211201

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



KEMPPI

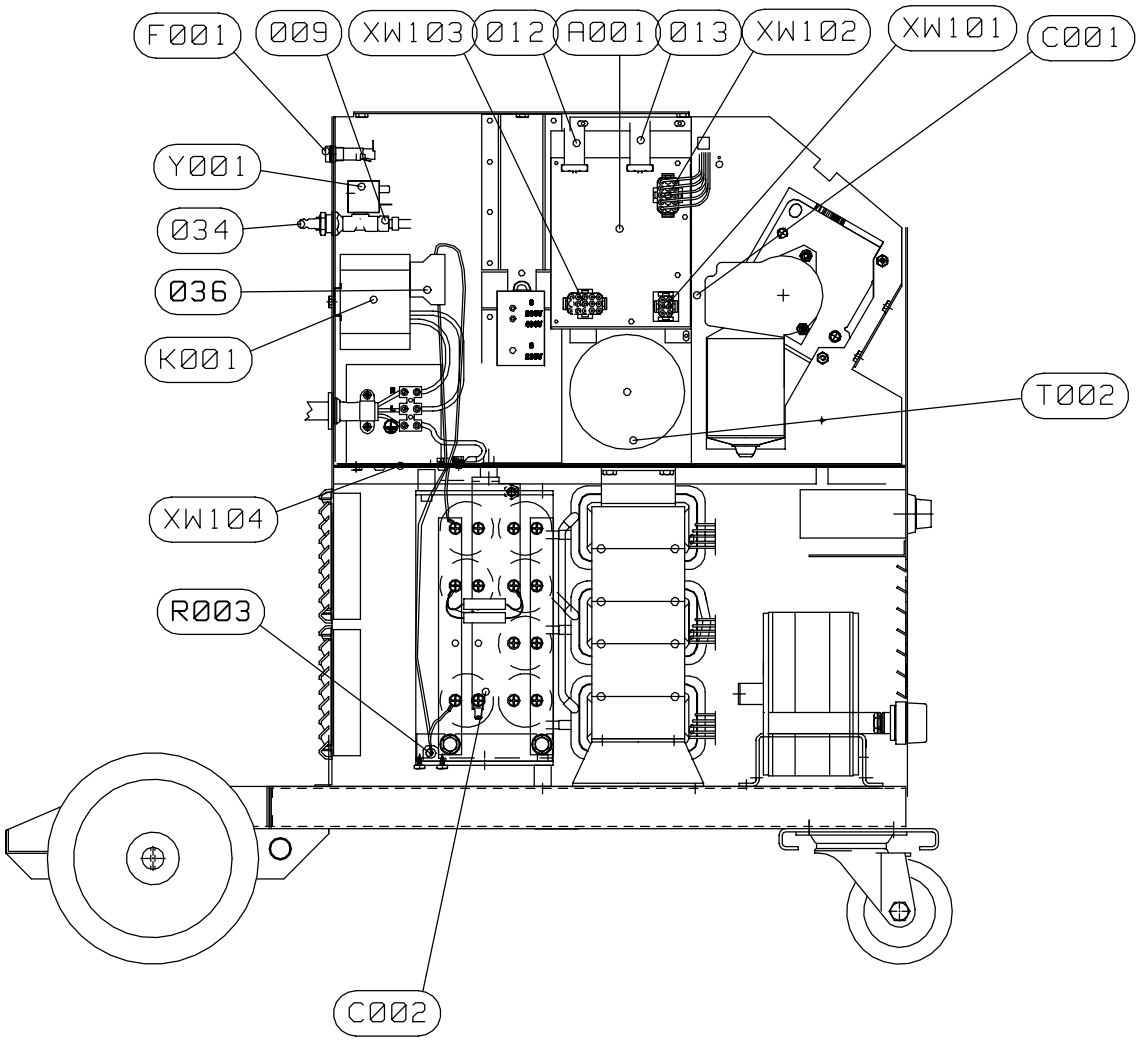
2070510A

KEMPOMAT 2001

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

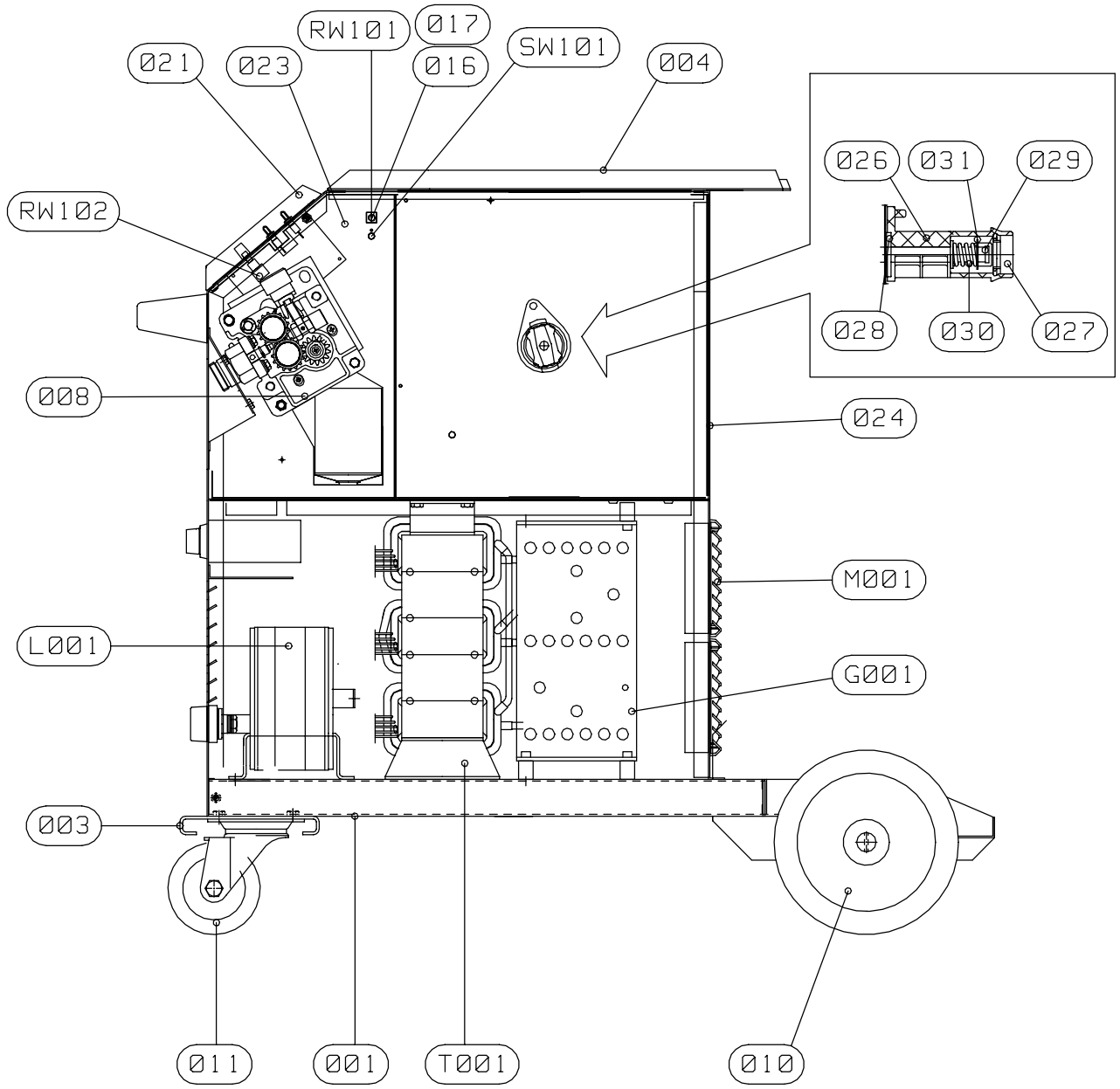
1921740
V211201



KEMPOMAT 2001

VARAOSAT **SPARE PARTS**
RESERVDELAR **ERSATZTEILE**
RESERVE DELER **ONDERDELEN**
RESERVEDELE **PIECES DETACHEES**

1921740
V211201



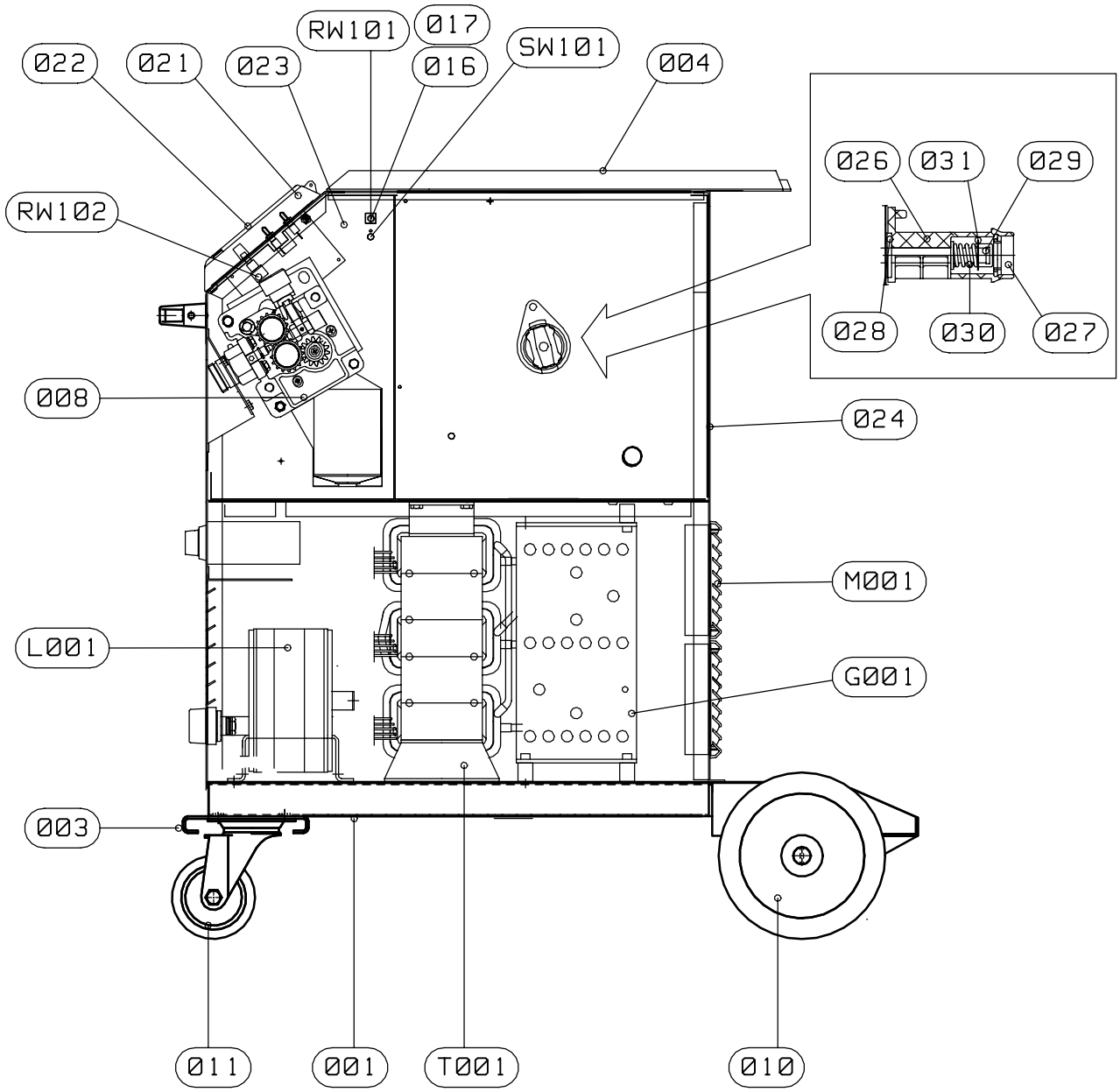
2070510A

KEMPOMAT 2500

1921790
V214160

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



KEMPPI

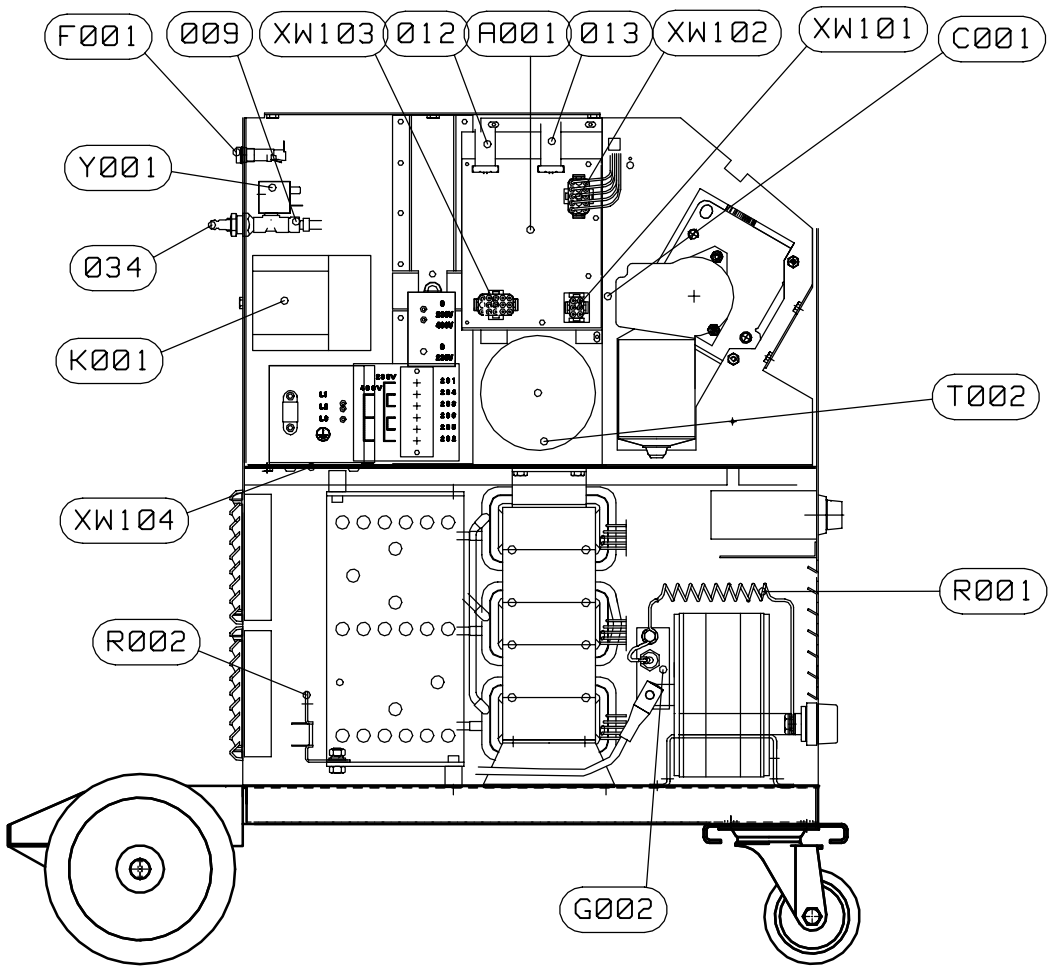
2070720A

KEMPOMAT 2500

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

1921790
V214160

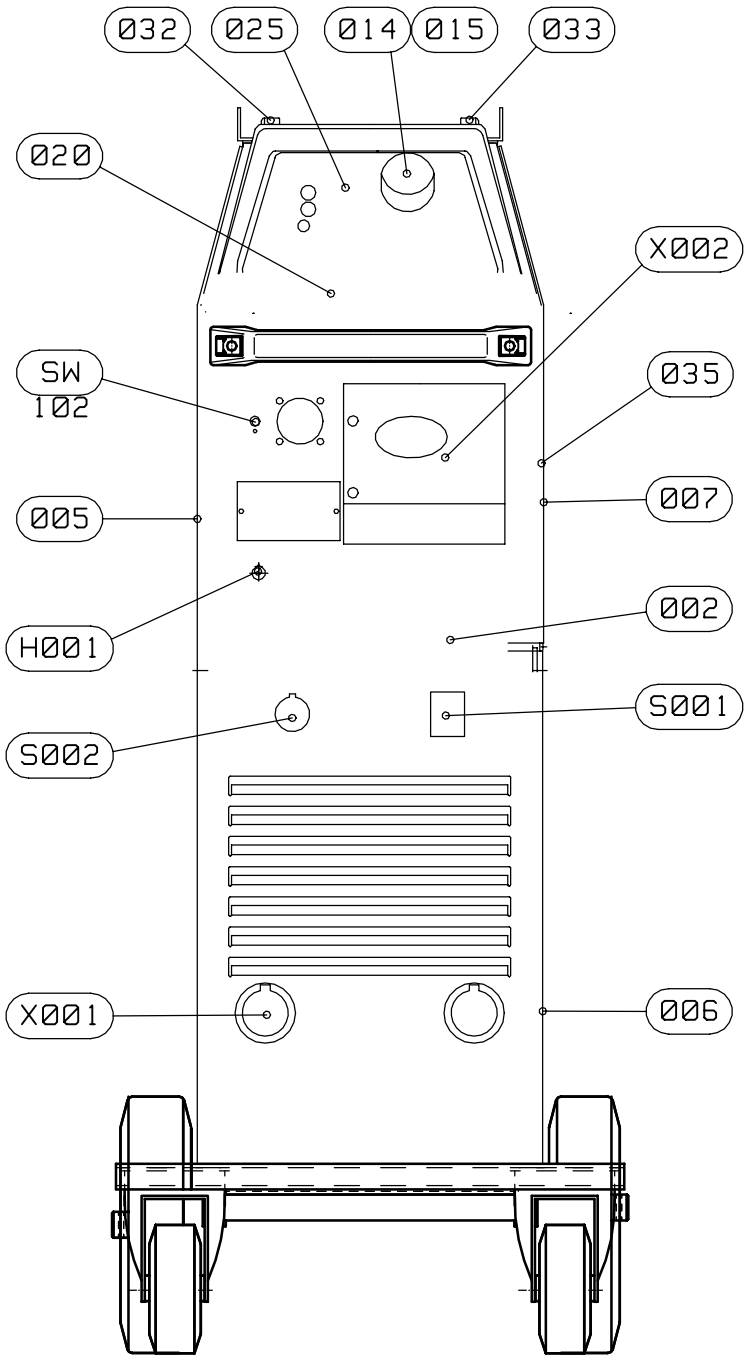


2070720A

KEMPOMAT 2500

VARAOSAT — SPARE PARTS
RESERVDELAR — ERSATZTEILE
RESERVE DELER — ONDERDELEN
RESERVEDELE — PIECES DETACHEES

1921790
V214160



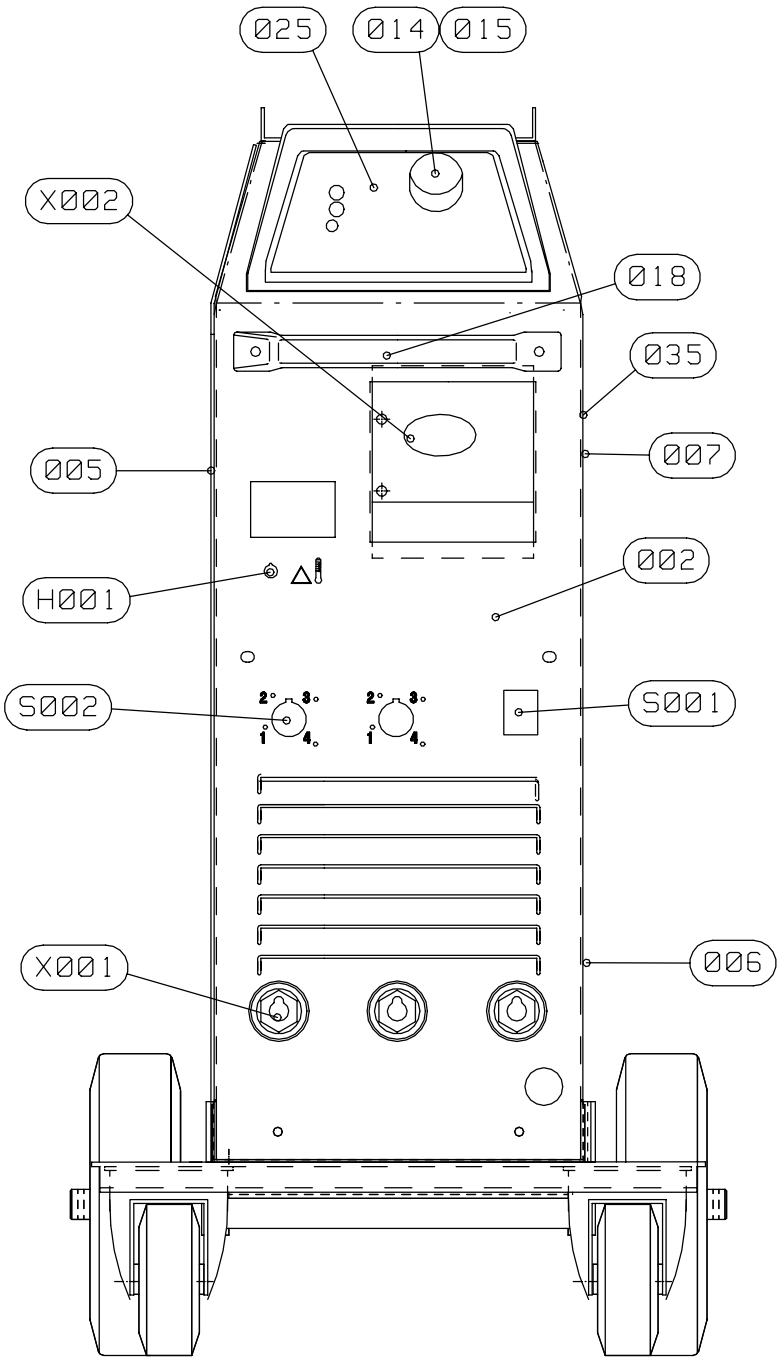
2070720A

KEMPOMAT 2501

1921750
V211202

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



KEMPPI

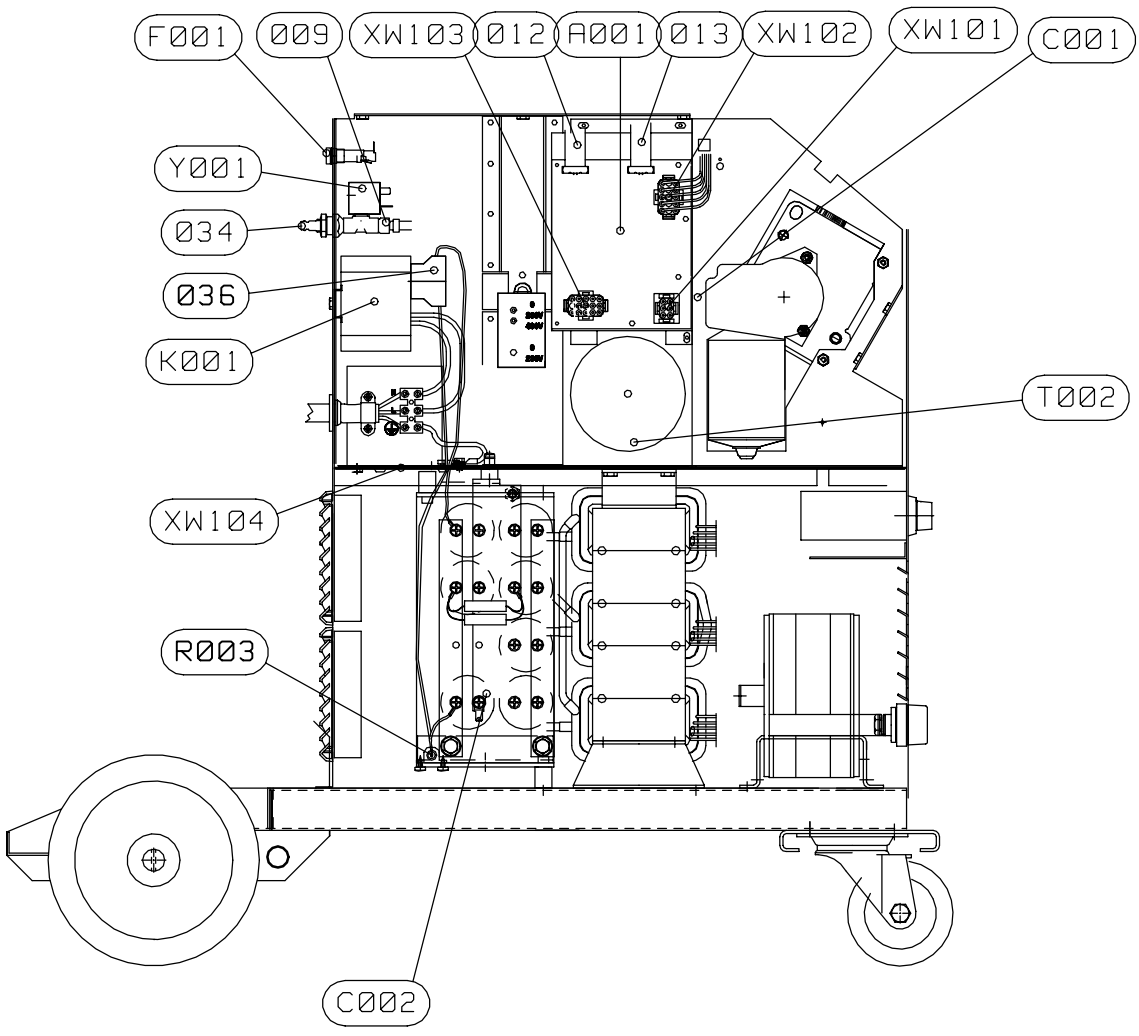
2070500A

KEMPOMAT 2501

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

1921750
V211202

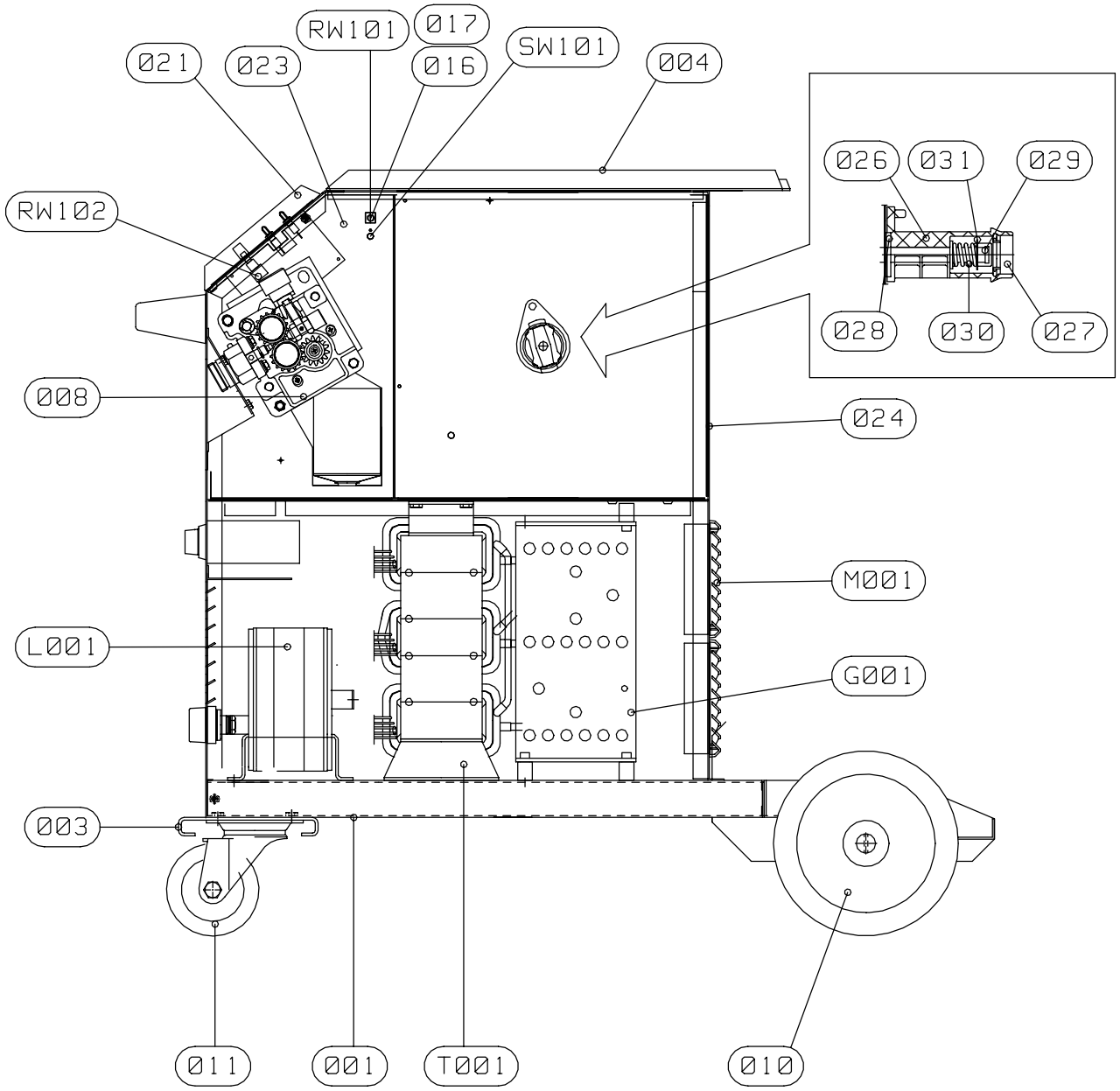


2070500

KEMPOMAT 2501

VARAOSAT **SPARE PARTS**
RESERVDELAR **ERSATZTEILE**
RESERVE DELER **ONDERDELEN**
RESERVEDELE **PIECES DETACHEES**

1921750
V211202



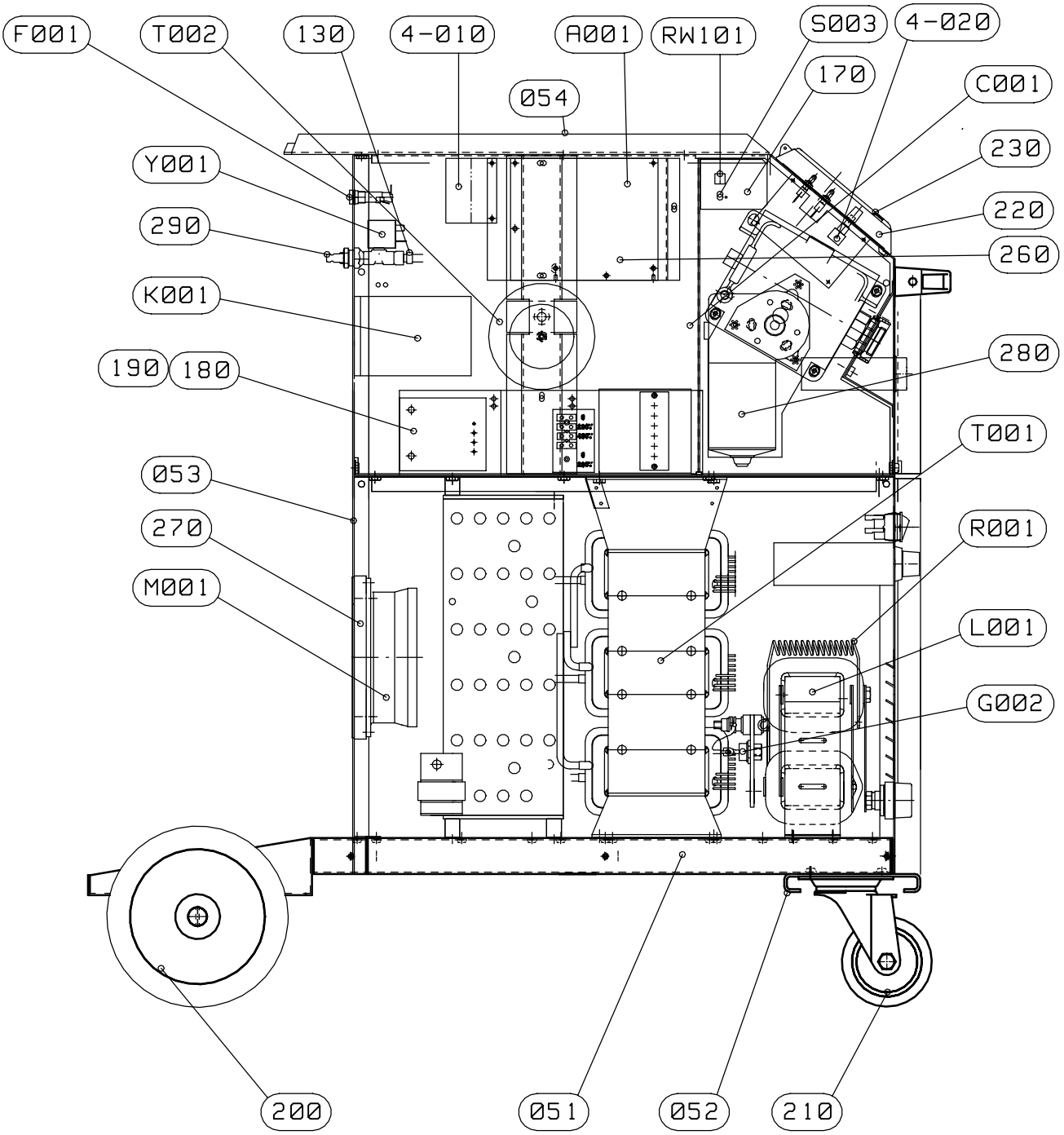
2070500A

KEMPOMAT3200

1921800
V214170

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



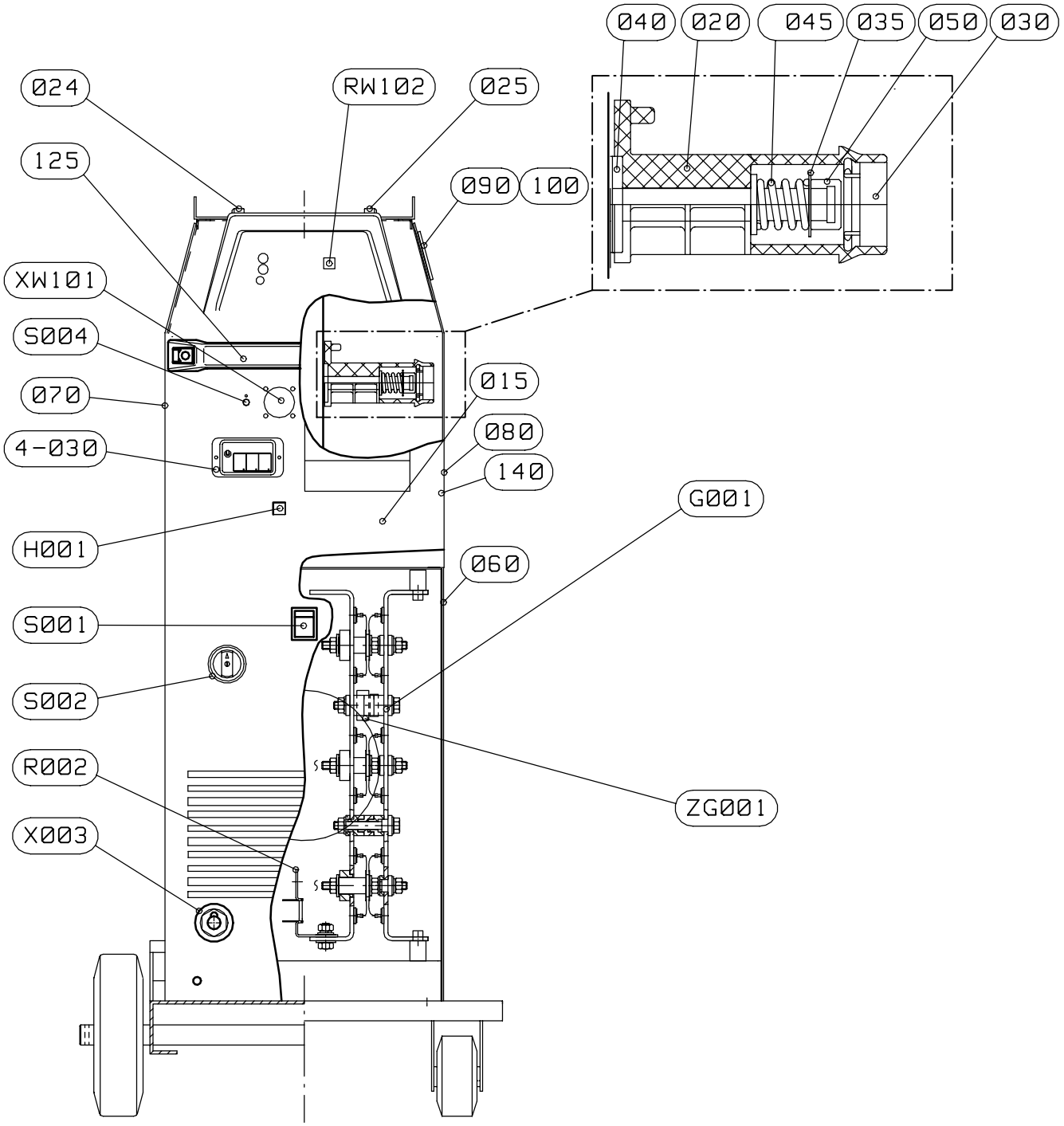
KEMPPI

4291460

KEMPOMAT 3200

VARAOSAT **SPARE PARTS**
RESERVDELAR **ERSATZTEILE**
RESERVE DELER **ONDERDELEN**
RESERVEDELE **PIECES DETACHEES**

1921800
V214170



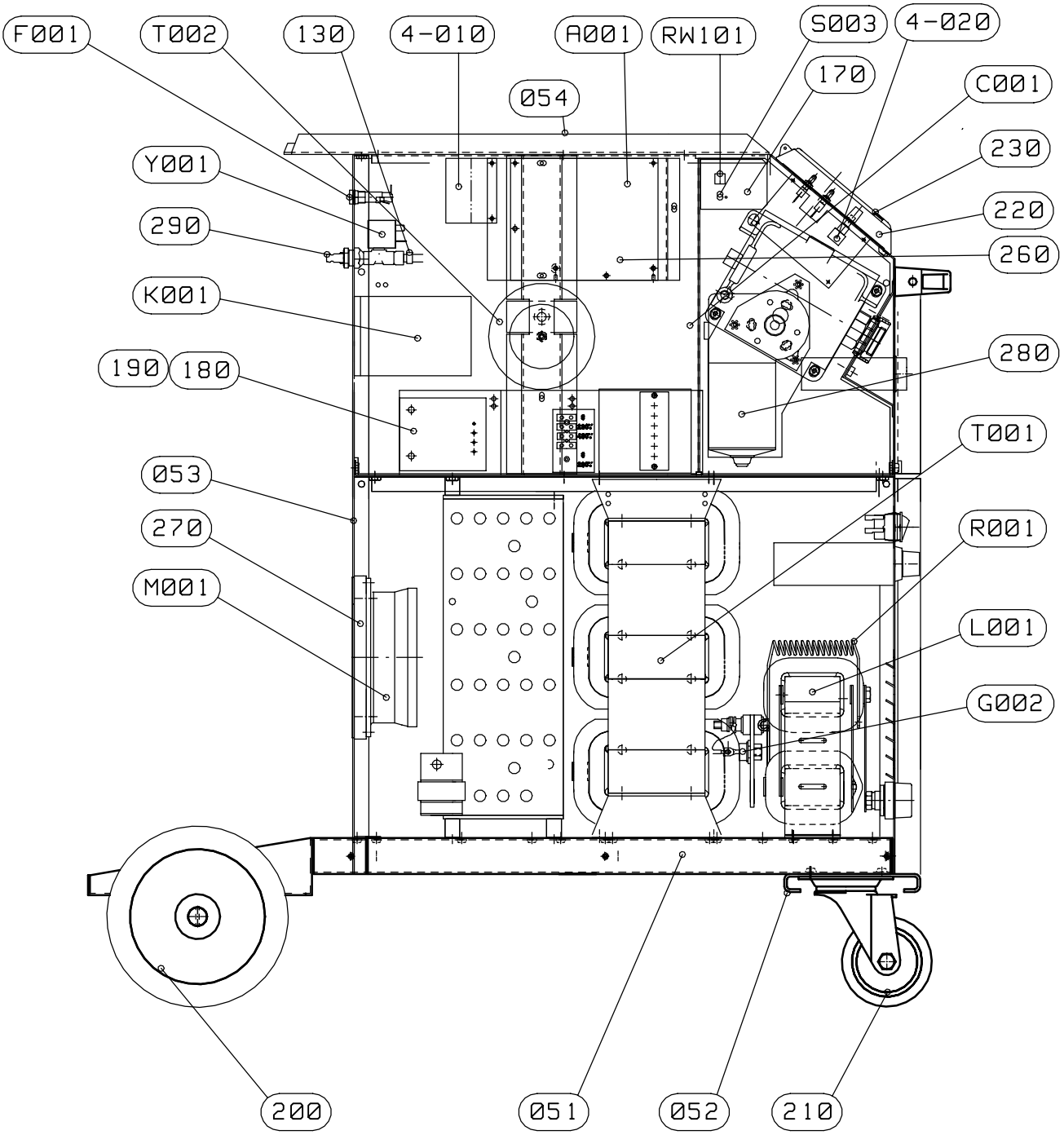
4291470

KEMPOMAT 4000 230V

1921820
V214181

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



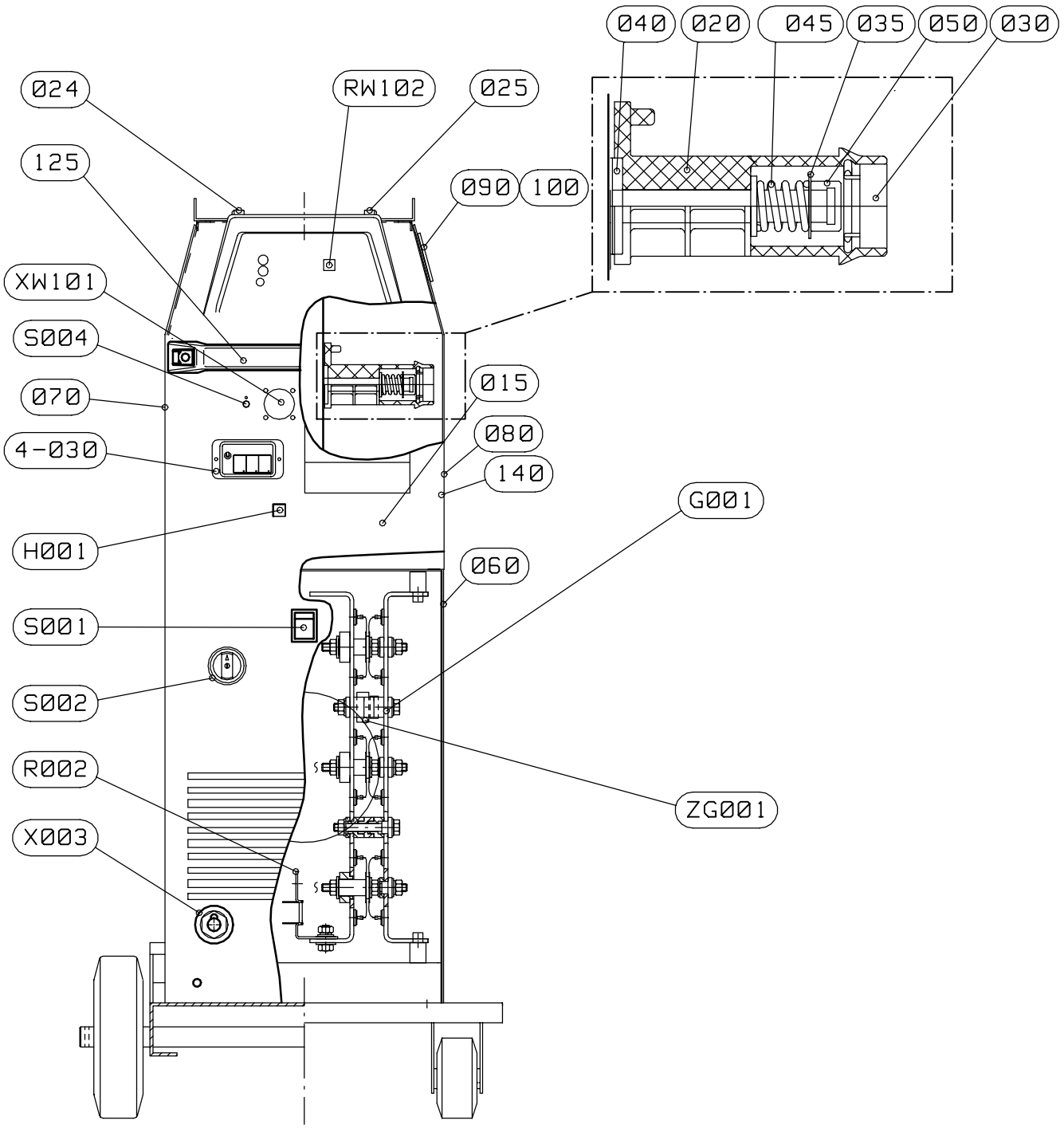
KEMPPI

4291940

KEMPOMAT 4000 230V

VARAOSAT SPARE PARTS
RESERVDELAR ERSATZTEILE
RESERVE DELER ONDERDELEN
RESERVEDELE PIECES DETACHEES

1921820
V214181



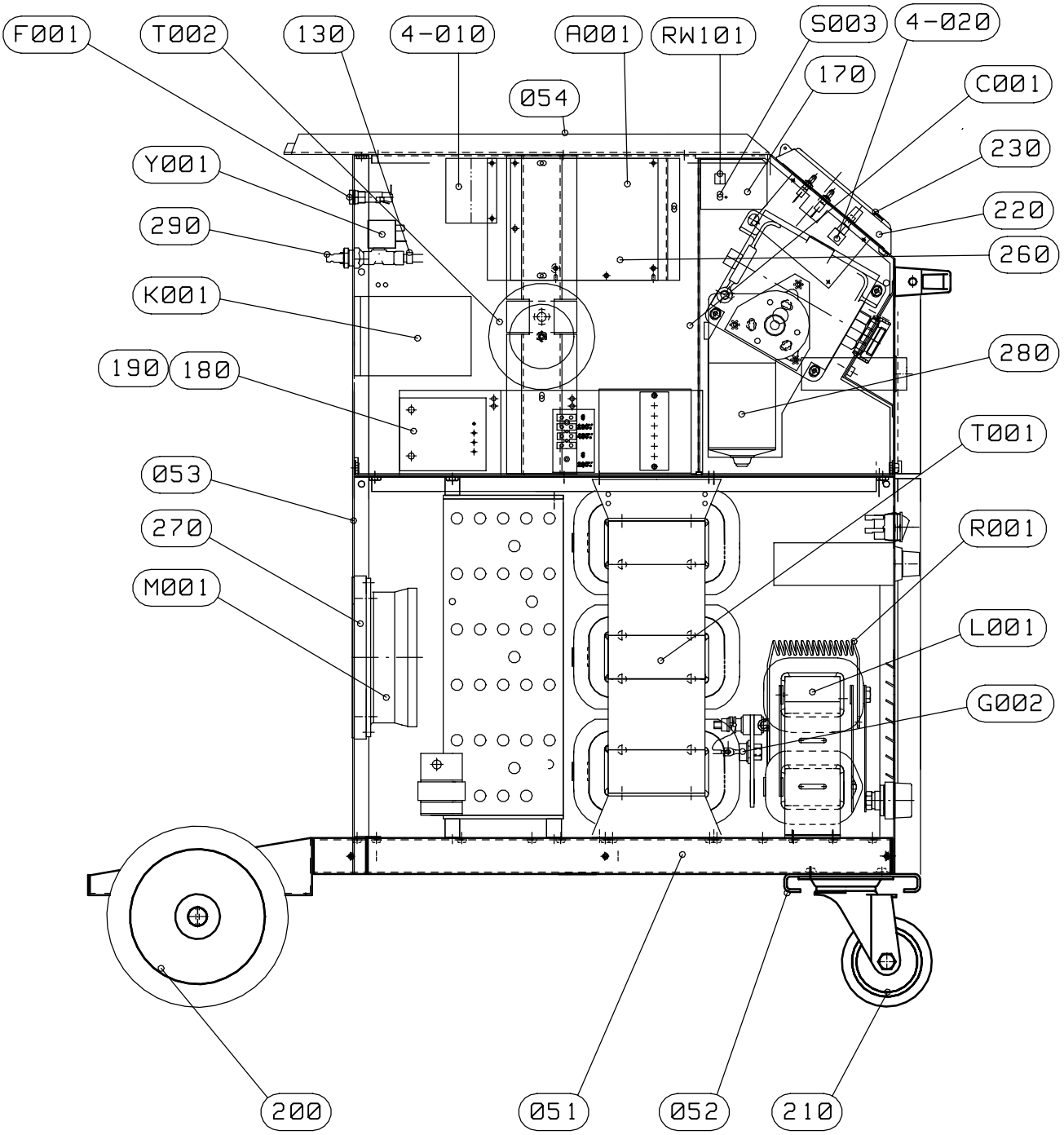
4291500

KEMPOMAT 4000 400V

1921810
V214180

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



KEMPPI

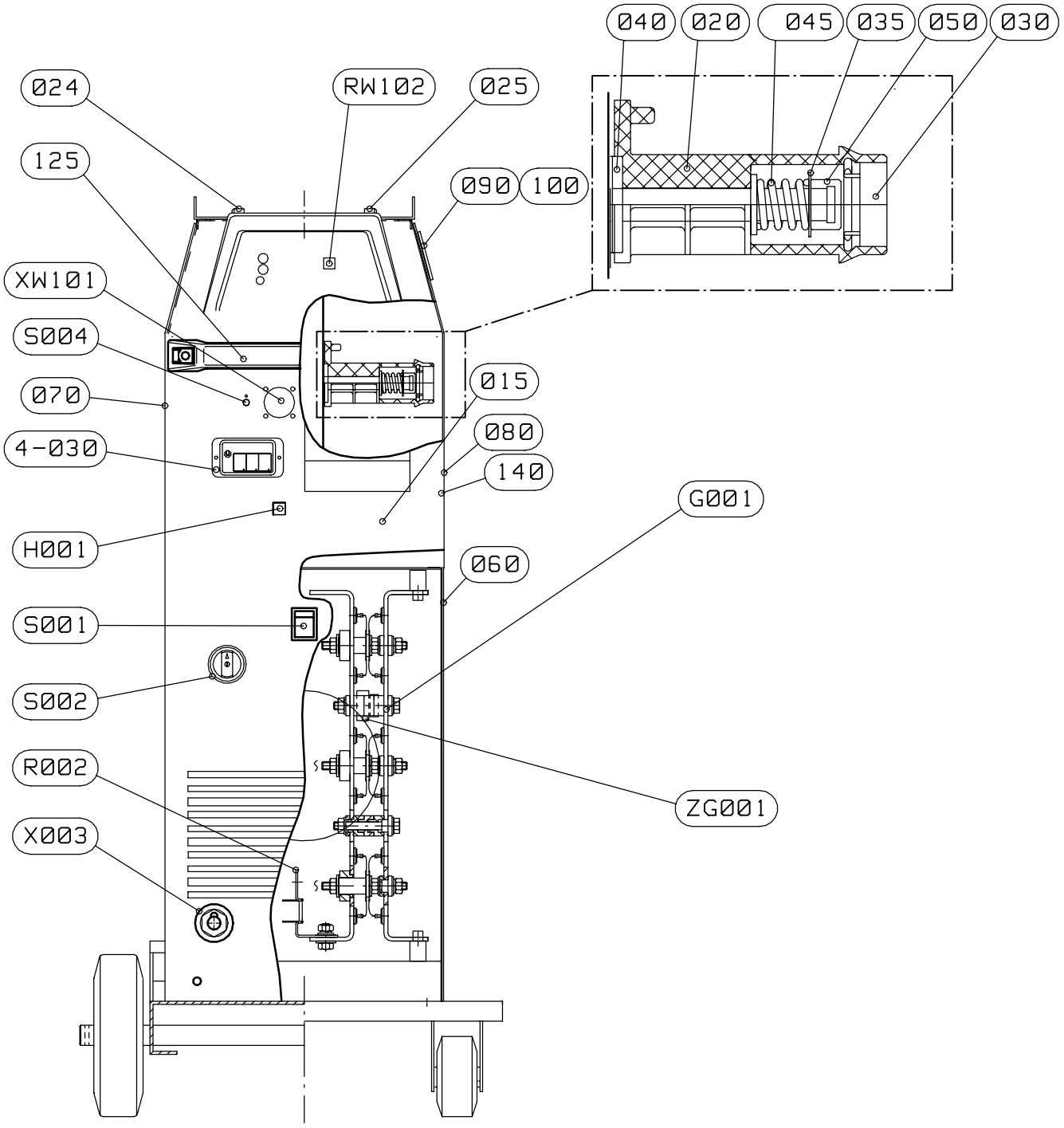
4291490

KEMPOMAT 4000 400V

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

1921810
V214180



4291500

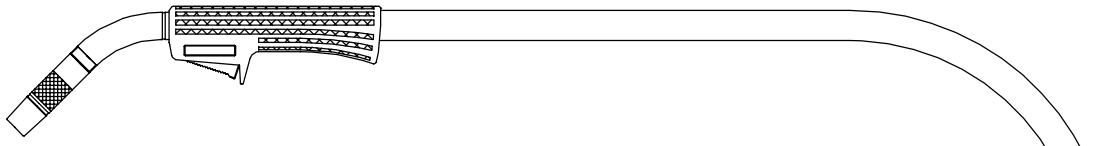
KMG20,25,32,40

1925700
V251012

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

KMG20
KMG25



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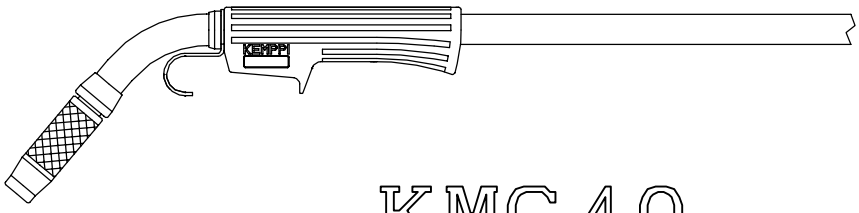
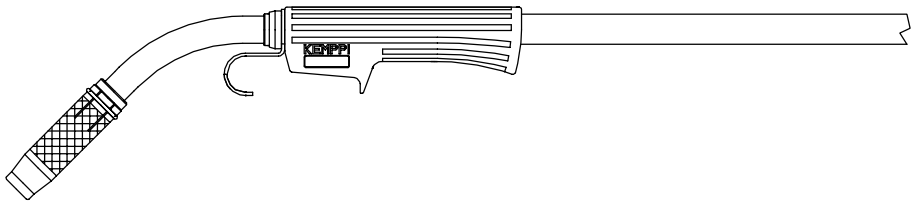
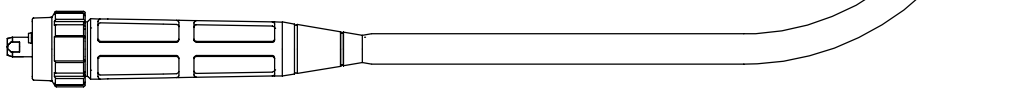


KMG40





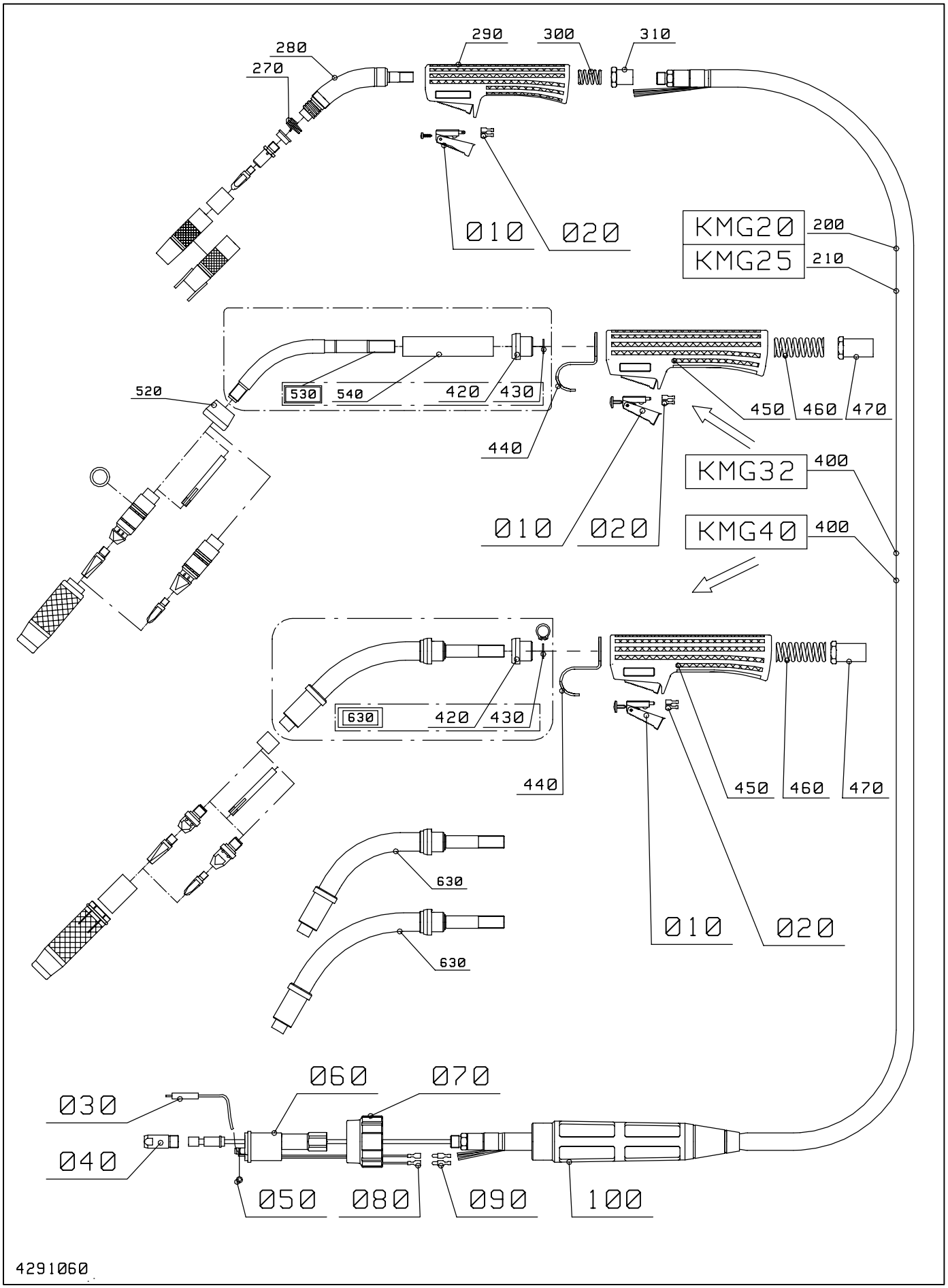
KEMPPI
The Joy of Welding

4291050A

KMG20,25,32,40

VARAOSAT — SPARE PARTS
RESERVDELAR — ERSATZTEILE
RESERVE DELER — ONDERDELEN
RESERVEDELE — PIECES DETACHEES

1925700
V251012

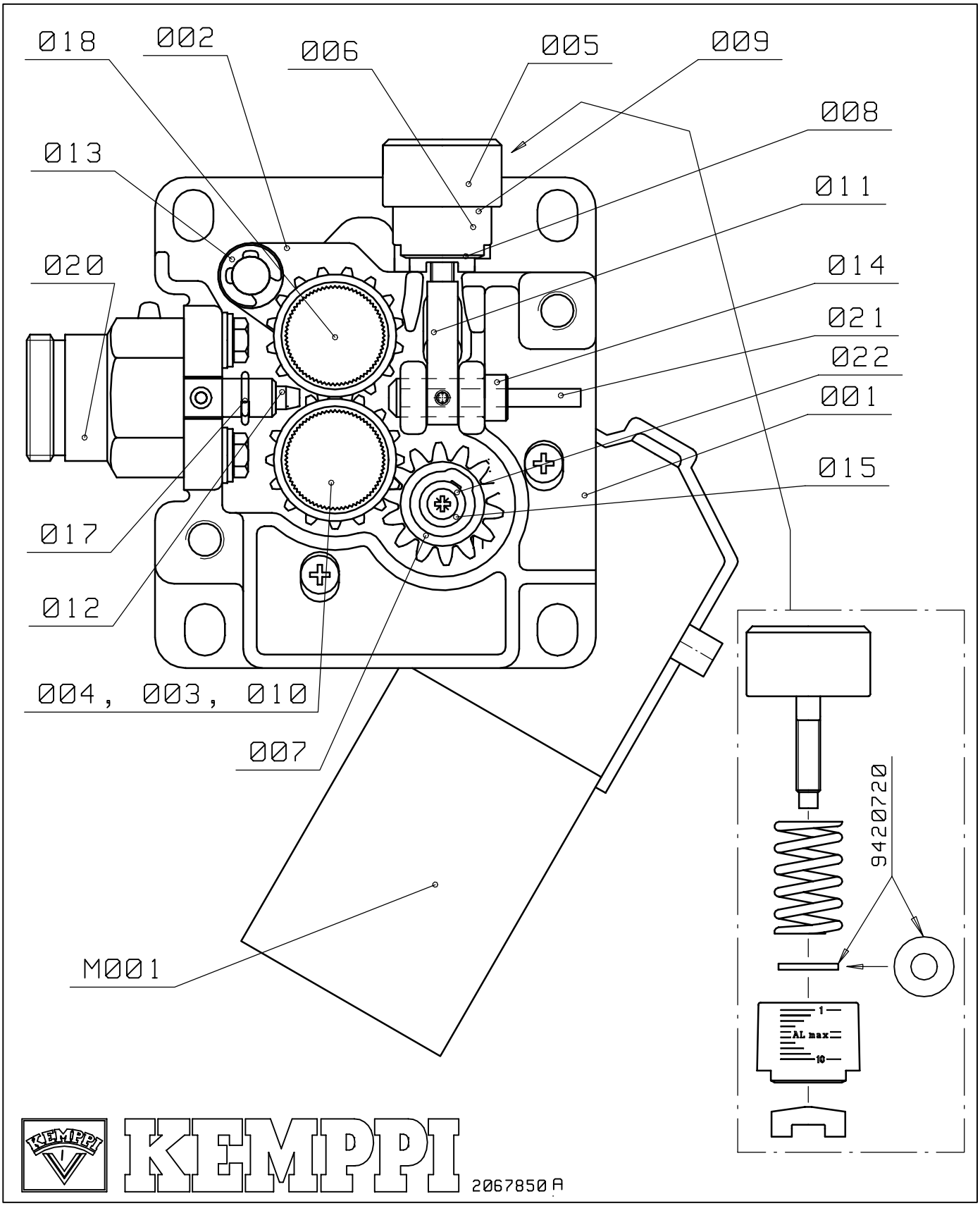


SL-K250 KMAT18/25

1921650
V214120

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



KEMPPI

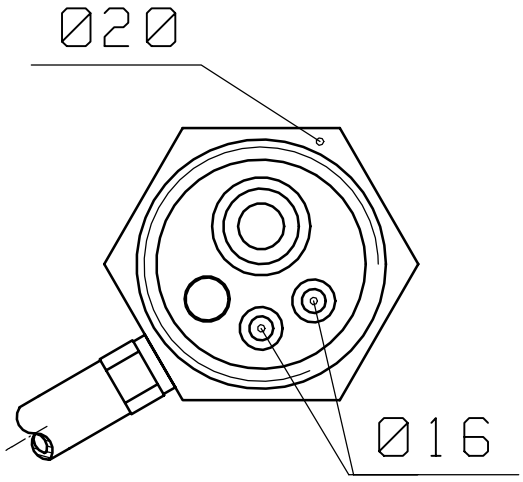
2067850 A

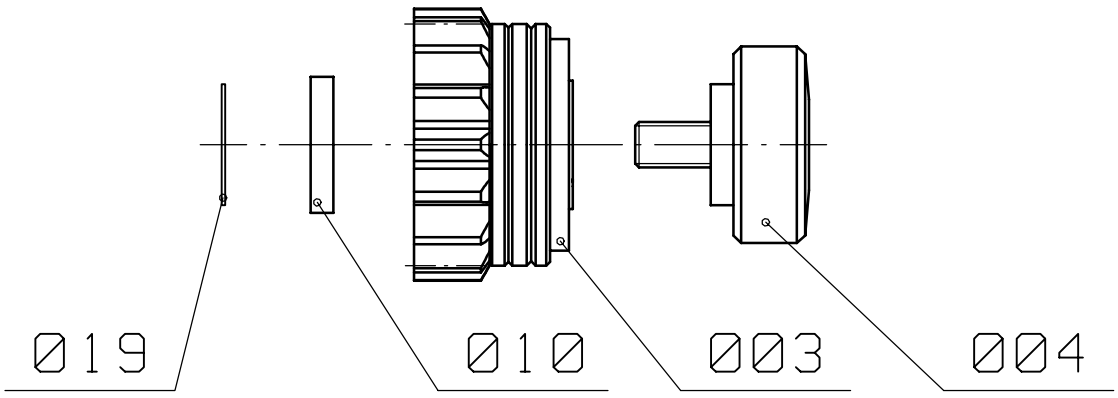
SL-K250 KMAT18/25

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

1921650
V214120





2067850 A

SL-K250 KMAT18/25

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES

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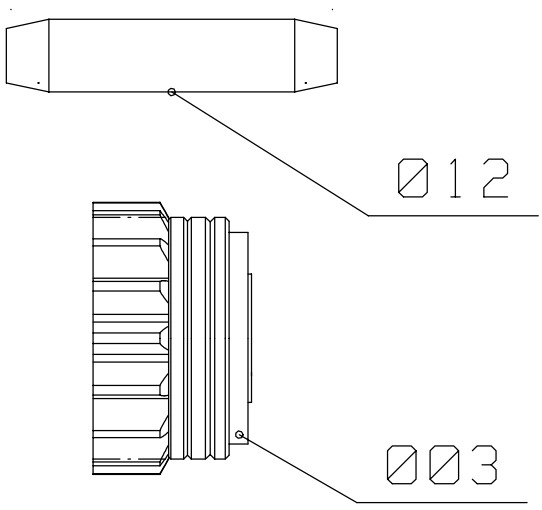
V214120



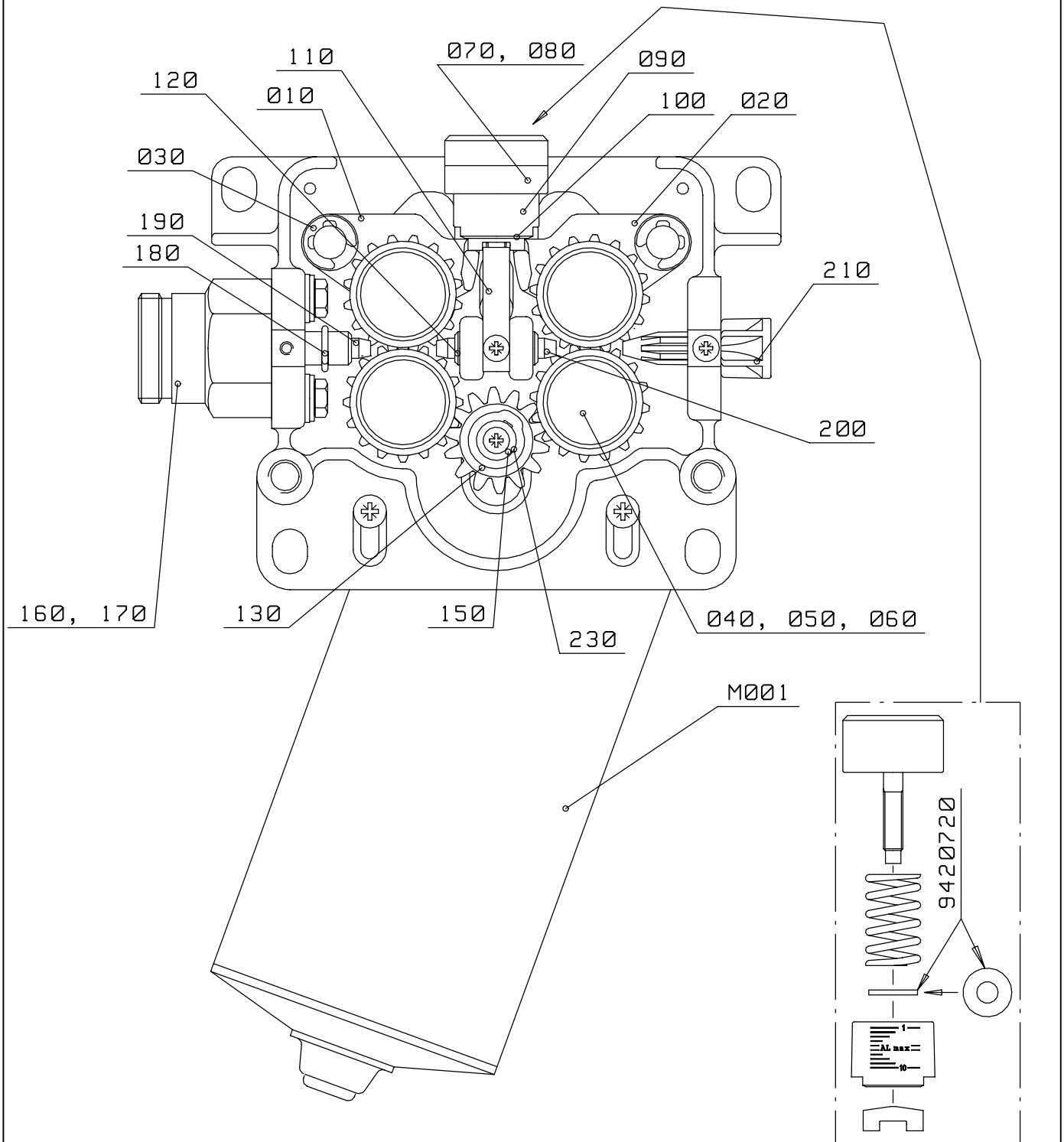
2067850A

SL-K400

1921600
V923501

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES



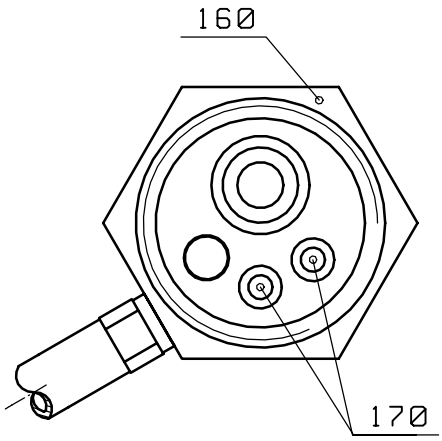
KEMPPI

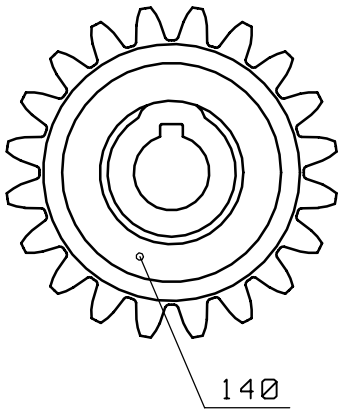
2066990 A

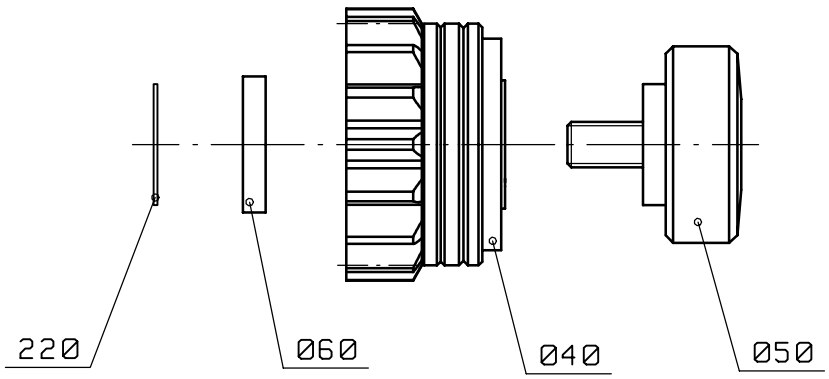
SL-K400

VARAOSAT **SPARE PARTS**
RESERVDELAR **ERSATZTEILE**
RESERVE DELER **ONDERDELEN**
RESERVEDELE **PIECES DETACHEES**

1921600
V923501







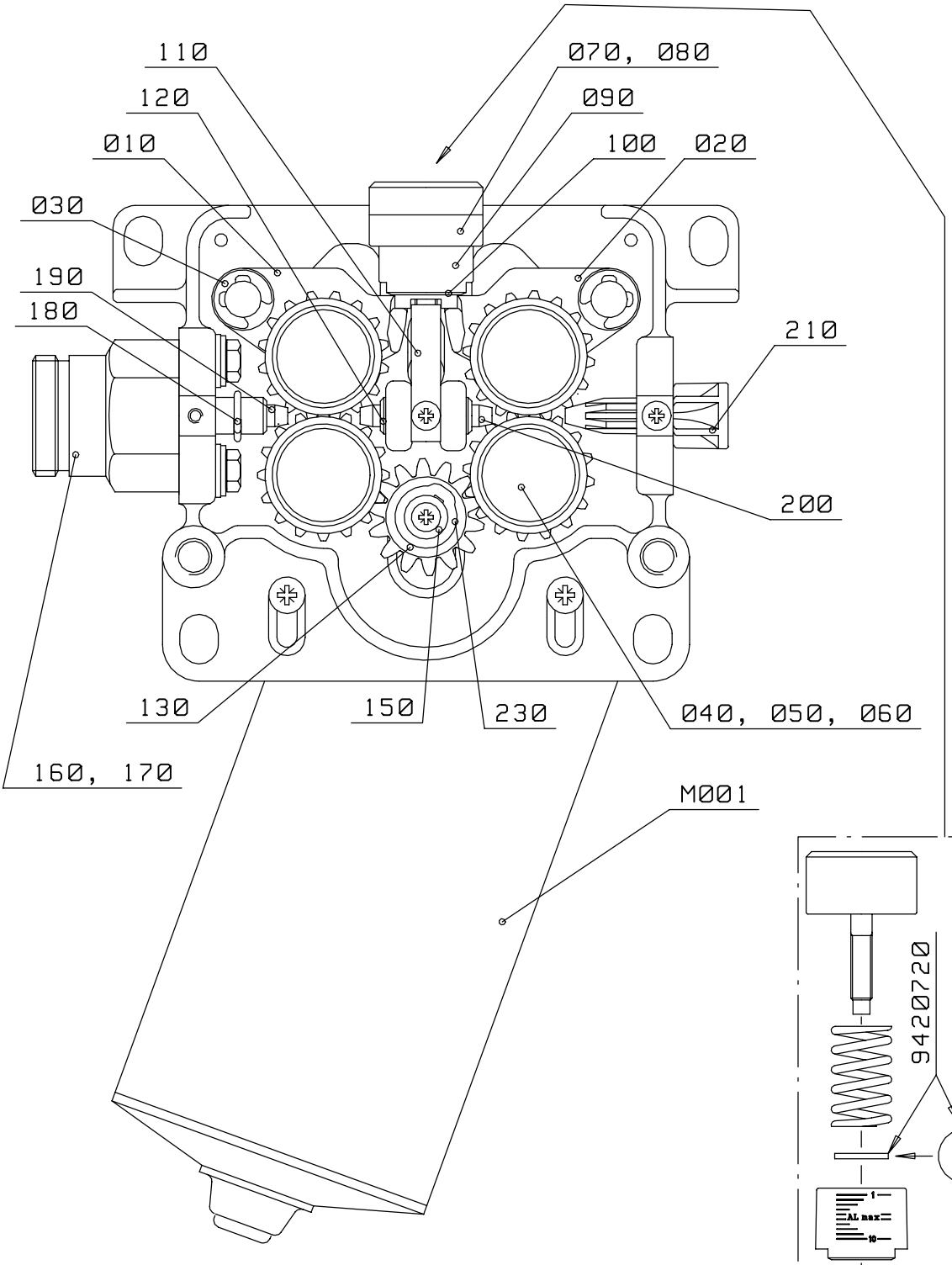
2066990 A

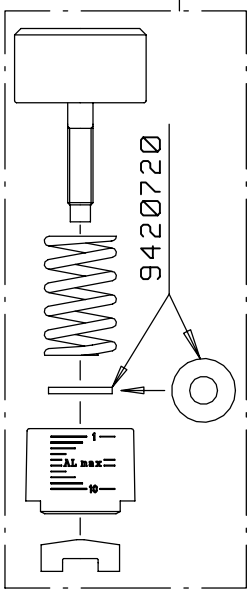
SL-K-550

1921700
V923502

VARAOSAT
RESERVDELAR
RESERVE DELER
RESERVEDELE

SPARE PARTS
ERSATZTEILE
ONDERDELEN
PIECES DETACHEES





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VARAOSAT **SPARE PARTS**
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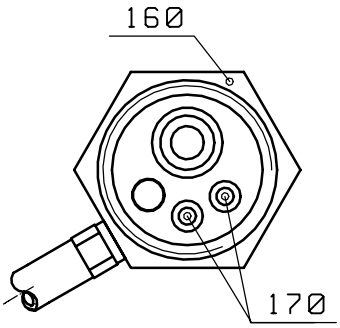

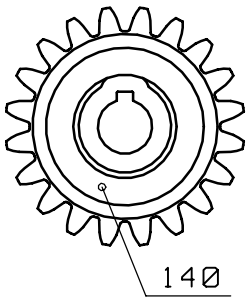

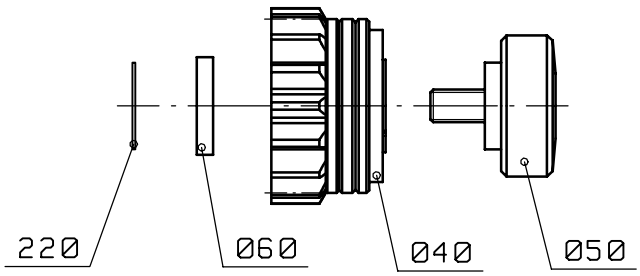

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